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THE IBIS,

A
QUARTERLY JOURNAL OF ORNITHOLOGY.

EDITED BY
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AND
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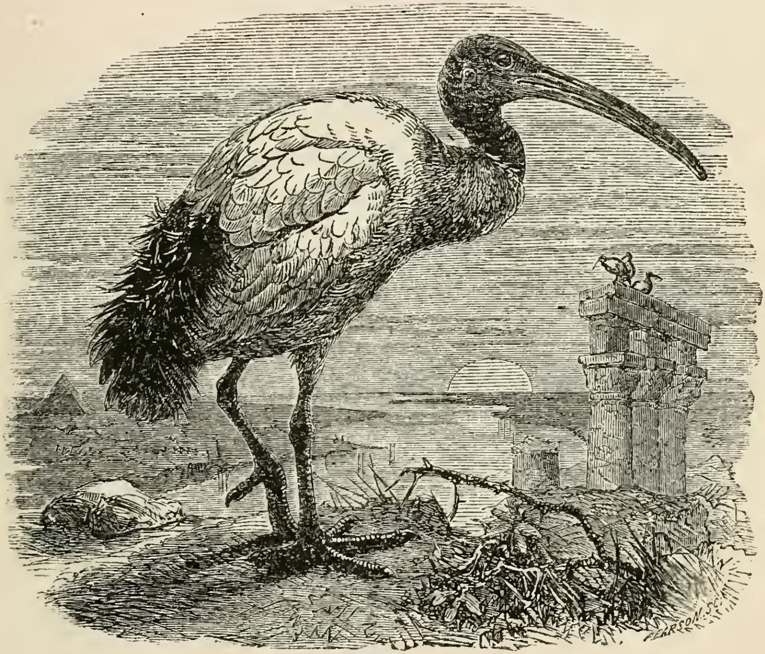

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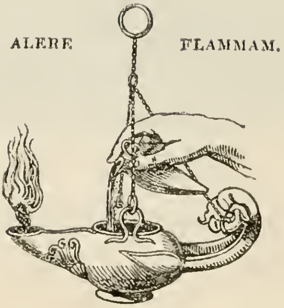
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The Editors have no fear of the future good progress of Ornithology and of 'The Ibis.'

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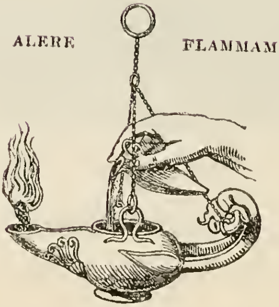
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PREFACE.

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ERRATA ET CORRIGENDA.

Page Line
35, 25, for *Arudinnax* read *Arundinax.*
199, 4, for *Cœrebra* read *Cœreba.*
215, 5, for *Mymotherula* read *Myrmotherula.*
244 wrongly numbered 424.
271, 7, for *Totanue* read *Totanus.*
277, 29, *after* one *add* of.
310, 23, *after* between *dele* the.
315, 3, for *minula* read *minuta.*
361, 28, *for* Die *read* Der.
378, 4, for *Syrniun* read *Syrnium.*

THE IBIS.

FOURTH SERIES.

No. IX. JANUARY 1879.

I.—*Contributions to the Ornithology of Siberia.*

By Henry Seebohm.

[Continued from 'The Ibis,' 1877, p. 352.]

Ampelis garrulus, Linn.

On the 14th of June I recognized the note and caught a distant sight of a small flock of about half a dozen Waxwings; but the forest was so much flooded that I was unable to do more than watch the birds through my binocular.

Parus ater, Linn.

I did not meet with the Coal-Tit until I reached Yen-e-saisk′ on the return journey.

Parus major, Linn.

The Great Tit is a winter resident in the whole of South Siberia; and at various villages on the journey as far north as Yen-e-saisk′ it was frequently seen. I did not observe it further north.

Parus palustris, Linn., subsp. *camtchatkensis*, Bon.

The only time that I met with a Marsh-Tit was on the 12th May. I only saw one pair, in company with a small party of Lapp Tits. They certainly belong to the north-eastern form, with grey rather than brown backs, and with the black on the head extending far down the back. I cannot distinguish a Yen-e-say′ skin from others from Irkutsk and Archangel. It seems to me impossible to allow specific rank to the arctic and subarctic forms of *P. palustris,* and I think they ought to figure as subspecies only—*P. palustris,* subspecies *borealis,* and *P. palustris,* subspecies *camtchatkensis.*

PARUS CINCTUS, Bodd., subsp. *grisescens,* Sharpe et Dresser.

I found the Lapp Tit tolerably common in the forests on our arrival on the Arctic circle. It was seldom that I made a round on snow-shoes in the forest without falling in with a small flock of these birds. I did not, however, observe them further north. I brought home a very large series. They agree with skins from Lake Baical in being much less rusty on the flanks than specimens from Europe usually are. They vary considerably *inter se*; and it would be easy to make a series from the Norwegian bird, through Archangel and Petchora skins, to the extreme Siberian form. My Yen-e-say′ skins certainly belong to the *Parus grisescens* of Sharpe and Dresser; but the authors of that title would now, I believe, scarcely claim specific rank for the bird they described.

TURDUS PILARIS, Linn.

The Fieldfare arrived at the Arctic circle on the 8th of June, and soon became very abundant. I took several nests with eggs during the first week in July. It seemed to be generally distributed over the country, breeding alone or in small parties, and not in the large colonies which are so frequently met with in Norway. The call-note of this bird, a loose *tsik-tsak,* was almost constantly to be heard; but the song seemed to be confined to the pairing-season. It is a low and not particularly melodious warble, and is generally commenced when the bird is on the wing. The last nest of the Fieldfare which I found was in lat. 69°, on the tundra. Here the bird was breeding on the ground under the edge of a cliff, in a situation such as a Ring-Ouzel might have chosen. I did not see the Fieldfare further north than lat. 70½°; but I shot them as far south as Yen-e-saisk′, in lat. 58°, where they appeared to have been breeding, as it was only the middle of August.

TURDUS ILIACUS, Linn.

I shot the first Redwing on the 5th of June. It appears to arrive earlier than the Fieldfare, and to go further north. On the Arctic circle it built its nest in the willows and birches, but generally nearer the ground than the Fieldfare usually does. In lat. 71° the Redwing was still common and breeding on the ground, generally on a sloping bank. I did not see it further north.

TURDUS DUBIUS, Bechst.

The first Thrush to arrive at the Arctic circle was this species—the Dusky Thrush (*T. fuscatus* of Pallas). Small parties of it arrived on the 4th of June, and were to be found feeding on the steep banks where the sun had melted the snow. Their call-note reminded me of that of the Redwing. During the next week they were very plentiful, and I began anxiously to look out for their nests; but within a fortnight after their arrival they had all disappeared, and I saw no more of them until the 12th of July, during our voyage down the river. On this day we cast anchor for a few hours in lat. 69°, and I went on shore to explore for the first time a Siberian tundra. I climbed up the steep bank, and found myself in a wild desolate-looking country, full of lakes, swamps, and rivers, in some places a dead flat, in others undulating, and even hilly, brilliant with gay flowers, swarming with mosquitoes, and full of birds. In sheltered places dwarf willows and creeping-birches were growing, and (because we were only some fifty versts from the forests) here and there a few stunted larches. Winding through the tundra was the bed of a river, now nothing but a small deep valley, forming a chain of isolated lakes and pools. This river-bed bears the name of the dried-up Doo-din′-ka, and is about fifty versts to the north-west of the real river Doo-din′-ka. On some of the northern slopes large patches of snow were still lying. Most of the birds evidently had young. I found myself generally the centre of attraction of a little crowd of birds uttering their various alarm-notes as they flew round or waited on some shrub or plant with their bills full of mosquitoes, anxious to feed their young as soon as I was out of their way. As I was returning to the shore, and descending a steep sloping bank covered with patches of dwarf birch and willow, overlooking a flat willow-swamp which evidently once formed a little delta at the mouth of the dried-up Doo-din′-ka, my attention was attracted by a pair of Dusky Thrushes loudly proclaiming the vicinity of their nest. I shot one of them, and, after a diligent search of half an hour, found the nest in the fork of a willow bush level with the ground. It was exactly like the nest of a Fieldfare, lined with dried grass, and contained, alas! five young birds about a week old.

At noon we weighed anchor; but at midnight it was blowing such a stiff gale that we were afraid to round the "broad nose" of Tol-stan-os′ in the 'Ibis;' so we cast anchor under the lee of the mud cliffs of the Yen-e-say′, and I again went on shore. In some places the cliffs were very steep, and were naked mud or clay. In others the slope was more gradual, and was covered with mud and alder bushes. Among these bushes I found the Dusky Thrush again breeding, but was only able to find one nest with five nearly fledged young. The nest was placed, as before, in the fork of a willow, level with the ground. This was the last time that I saw this species of Thrush.

There is considerable variation in the colour of the skins of this species which I brought from the Yen-e-say′, especially in the amount of black on the breast and red on the upper plumage. Some specimens have more or less rufous on the tail-feathers, approaching *T. naumanni*. One male in particular has scarcely any red tinge in the plumage, and has even grey instead of chestnut axillaries. The young in nestling plumage differ from the young of *T. pilaris, T. iliacus, T. obscurus*, and *T. atrigularis*, in having more buff on the wing and less buff on the breast.

TURDUS OBSCURUS, Gm.

During the first week of June the forests were practically impassable. The deep snow was in process of melting, and too soft to bear the weight even when distributed over a pair of snow-shoes each measuring 4 feet 6 inches long and 10 inches wide. On some of the steeper slopes exposed to the south small oases of bare ground were to be found. One of these, close behind my quarters, thinly covered over with bushes, was a very prolific hunting-ground for me during the spring migration. On this piece of ground, on the 7th of June, I had the pleasure of shooting my first brace of Dark Thrushes (the *Turdus pallens* of Pallas, but not the *Turdus pallidus* of Gmelin). A couple of days afterwards I shot two more on the same ground. As soon as the forests were passable I made daily rambles, and almost always heard the song of this bird. *Turdus dubius* had gone further north to breed; but this species was evidently stopping and making preparations to build its nest. This Thrush is a very poor songster, but he has a splendid voice. He warbles two or three clear rich notes, as mellow as those of a blackbird. He stops; his song is finished; and you hear no more for a minute, when the same brilliant prelude is repeated. On the 27th of June I had the good luck to take the nest of this bird. It was placed upon a horizontal branch of a somewhat slender spruce, about fifteen feet from the ground. The female flew off as I approached the tree. I shot her, and soon had the nest with five eggs in my hand. The nest is carefully made, neatly lined with mud and afterwards with dry grass. The eggs resemble small but richly marked Blackbird's eggs. I did not meet with this interesting Thrush further north than the Arctic circle; but on my return journey, in lat. 66°, on the 3rd of August (and afterwards in lat 63°, on the 6th of August), I shot the young in first plumage, with spotted backs and spotted breasts. One of these skins will be figured in Dresser's 'Birds of Europe.'

TURDUS SIBIRICUS, Pallas.

Whilst the remains of the ice were still straggling down the Yen-e-say' I occasionally caught a hasty glance at a dark-coloured Thrush with a very conspicuous white eyebrow;

but I did not succeed in shooting one until the 19th of June. It was feeding amongst the dead leaves on the ground in a dense birch plantation. It proved to be a fine male in adult plumage. I made the following memorandum of the colours of the soft parts:—"Bill black. Iris dark hazel. Pupil blue-black. Legs very light brown, yellower at the back of the tarsus and on the soles of the feet." In lat. 68° my companion assured me that he saw one of these very handsome birds on the wing; but I did not observe it myself after we left the Koo-ray′-i-ka, nor did I observe it at all on the return journey. It seems to be a very shy and wary bird, and it is evidently a very rare Thrush in the valley of the Yen-e-say′. Middendorff does not mention it; but I heard of it from a Polish exile at Toor-o-kansk′ as the *Chor′-noi drohzd*, or Black Thrush.

TURDUS ATRIGULARIS, Temm.

I did not meet with the Black-throated Thrush until the 6th of August, in lat. 63°, when I shot two birds in first plumage, which puzzled me. Two days later, in lat. 61½°, I secured a third young bird, and was fortunate enough to obtain the adult female also. The chestnut colour of the wing-lining and axillaries of the young of this species serve to distinguish it from the young of *T. pilaris* and *T. obscurus*. In the young of *T. iliacus* the chestnut of the wing-lining and axillaries is much deeper in colour, and extends onto the flanks, whilst it is scarcely perceptible on the under tail-coverts.

RUTICILLA PHŒNICURUS (Linn.).

My sole authority for including the Common Redstart among the birds of the Yen-e-say′ is a fine skin of a young Redstart in first plumage, which I shot on the 3rd of August in lat. 66°. The plumage of this skin agrees exactly with that of the young in first plumage of our bird; and since it was found by Harvie Brown and myself in the valley of the Petchora in about the same latitude, I see no reason for suspecting my Yen-e-say′ bird to be the young of any other allied species, though it has not hitherto been recorded from so far east.

CYANECULA SUECICA (Linn.).

I found the Blue-throated Warbler very common in the valley of the Yen-e-say′. It was amongst the earliest insect-eating birds to arrive at our winter-quarters. I shot several on the 5th of June. For a week or two they were very common; but as the snow on the tundra melted they gradually left us, only a few remaining to breed. I lost sight of the Blue-throat in lat. 71°.

NEMURA CYANURA (Pall.).

Curiously enough the first Warbler I shot on the Yen-e-say′ was the Blue-rumped Warbler. It was, of course, only an accidental straggler, who had strayed away from his companions and reached the Arctic circle before his time. It was the 21st of May, a bitterly cold day, no sunshine, a sou′-west wind, but nevertheless a keen frost. I did not turn out in the morning; but in the afternoon I put on my snow-shoes and had a round through the forest. There was hardly a bird to be seen; but as I was returning to the ship I caught sight of a little bird flitting about from tree to tree, apparently seeking insects on the trunks below the level of the surface of the snow in the hollows round the stems, caused by the heat of the sun absorbed by their dark surfaces. It gave me a long chase, flying rapidly, but never rising higher than three or four feet above the level of the snow. At last I got a long shot at it. It was alive when I secured it; and I remarked its brilliant, large, pale, blood-red eye. The legs were brown, and the bill nearly black. I shot a second example on the 14th of June; it was busily engaged in searching for insects, principally at the roots of trees. This was all I saw of this bird. Both my birds are males, but not in the fine metallic blue plumage which old birds attain. I was probably at the extreme limit of this bird's northern range.

CALLIOPE CAMTCHATKENSIS (Gmel.).

I only met with this very handsome bird once within the Arctic circle. This was on the 14th of June, whilst the ice was still straggling down the river. Early in the morning, before breakfast, Blue-throats were singing lustily. One bird struck me as having a wonderfully fine song, richer and more melodious than that of the Blue-throat, and scarcely inferior to that of a Nightingale. I shot him to be quite sure that he was only a Blue-throat, and was astonished to pick up a fine male Ruby-throated Warbler. I did not meet with this bird again until I reached Yen-e-saisk′ on my return journey. It was then the 16th of August, and I was exploring the reedy swamps near the river. My attention was attracted to a bird hidden among the *Carices,* which was uttering a very loud harsh cry, like *tic, tic, tic.* After waiting some time I got a shot at it in a tall bunch of rushes. I felt quite sure that the bird was a large *Acrocephalus,* and was astonished to find a second male Ruby-throat.

SAXICOLA ŒNANTHE (Linn.).

The Wheatear arrived at our winter quarters on the 3rd of June, and was common as far north as we went.

PRATINCOLA INDICA, Blyth.

The Indian form of the Stonechat, with pure white unspotted rump and nearly black axillaries, was rare. I noticed it first on the 11th of June on the Arctic circle, and afterwards in lat. 67°.

SYLVIA CURRUCA, Linn., subspecies *affinis,* Blyth.

I first noticed the Lesser Whitethroat on the 8th of June, and did not observe it further north than lat. 67°. In ‘Stray Feathers,’ iii. p. 372, Mr. Brooks endeavours to show that the Indian bird differs from ours. Of the six differences which he there points out I cannot detect any but the first. There is no doubt that in the eastern bird the wing is generally somewhat more rounded than in the western form; but whether this is sufficient to entitle the two forms to specific rank I feel considerable doubt. In ten skins from England, Norway, Heligoland, Russia, Turkey, and Asia Minor, the second primary is decidedly longer than the sixth. In one skin from India and one from the Yen-e-say′ this is also the case. In five skins from India and five skins from the Yen-e-say′ the second primary is shorter than the sixth, but longer than the seventh; and in one skin from Cawnpore and one from Beloochistan the second primary is shorter than the seventh, but longer than the eighth. More evidence must, I think, be collected before we admit *S. affinis* even to be a satisfactory subspecies.

PHYLLOSCOPUS BOREALIS (Blasius).

A fortnight after the arrival of *Phylloscopus trochilus, P. tristis,* and *P. superciliosus* I had given up *P. borealis* in despair, when suddenly it arrived in great numbers, and became the commonest of the four species. The song is almost exactly like the trill of the Redpole, but not quite so rapid, and a little more melodious. Its call-note is generally a single monotonous *dzit,* but sometimes made into a double note by dwelling on the first part, *d—z, zit.* It is less restless than the other Willow-Warblers, by no means shy, and is easy to shoot. When I left the Arctic circle it had probably not commenced to breed; but on the 6th of July I had the good fortune to shoot a bird from its nest at Egaska, in lat. 67°. The eggs are larger than those of our Willow-Warbler's, pure white, and profusely spotted all over with very small and very pale pink spots. They were five in number. The nest was built on the ground in a wood thinly scattered with trees, and was placed in a recess on the side of a tussock or little mound of grass and other plants. It was semidomed, the outside being composed of moss, and the inside of fine dry grass. There was neither feather nor hair used in the construction. I did not see this bird further north than lat. 69°.

PHYLLOSCOPUS TROCHILUS (Linn.).

"*Sylvia icterina,* Vieill.", Eversm. (nec Vieill.), Add. ad Pall. Zoogr. Rosso-As. fasc. iii. p. 14 (1842).

Phyllopneuste eversmani, Bp. Consp. Gen. Avium, p. 289 (1850).

It was with very great pleasure that I heard the familiar song of this European bird on the 4th of June on the Arctic circle, in the valley of the Yen-e-say′, so much further east than it has hitherto been recorded. I afterwards found it common extending as far northwards as lat. 70°. As this bird has never been found in India, it would seem probable that the Yen-e-say' Willow-Warblers winter in Persia, whence Blanford records them.

In the St.-Petersburg Museum I had an opportunity of examining the type of Eversmann's *Sylvia icterina,* which was afterwards rechristened by Bonaparte *Phyllopneuste eversmanni.* I found it to be a typical specimen of *Phylloscopus trochilus.*

PHYLLOSCOPUS TRISTIS, Blyth.

The Siberian Chiffchaff arrived on the Arctic circle on the 4th of June, and was a common bird there until we left. Even before the snow was melted in the forests its cheerful *chivit'-chivet'* was constantly to be heard. When feeding it is a most restless bird, seeming always to be in a hurry, as if its object were to cover as much ground as possible. Later on in the season it was much less difficult to shoot. Although it arrives so early, it appears to be a late breeder. The first nest I found was on the 2nd of July in lat. 67°. We were taking in ballast after our second narrow escape from shipwreck. I went on shore for a few hour's shooting. Alongside the ship, on a grassy part of the river-bank, there were three Ost'-yak chooms, with a herd of about fifty reindeer. Fifty yards above this encampment the shore was very muddy, and between the river and the forest was a long gently sloping bank sprinkled over with willows. In these trees wisps of dry grass were hanging, caught between the forks of the branches, and left there after the high water had subsided. In one of these, about two feet from the ground, a Siberian Chiffchaff had built its nest, or rather it had appropriated one of them for its nest. There was scarcely any attempt at interlacing stalks. It was undoubtedly the most slovenly and the most loosely constructed nest I remember to have seen. It was scarcely more than a hole, about two and a half inches in diameter, with one side a little higher than the other. The entrance was somewhat smaller than the greatest size inside, which was very globular and carefully lined with Capercalsie and Willow-Grouse feathers, plenty of which would naturally be found so near to an Ost'-yak choom. I shot the bird from the nest, which contained three eggs. My next nest of this bird was taken on the 14th of July, and contained four eggs. It was placed in the branches of an alder-bush, about four feet from the ground, and within twenty yards of the water's edge. It was rather more carefully constructed than the one I previously found, and composed of dry grass, semidomed, and lined with Willow-Grouse feathers. The third nest I took on the island of Mah′-la Brek′-off-sky, about lat. 70½°. This nest was similar in construction to the others, but was placed in the rank herbage within a few inches of the ground. The eggs in this and a fourth nest which I took the same day (July 15th), were somewhat incubated. The Siberian Chiffchaff lays a bold round egg, large for the size of the bird, pure white, spotted with dark purple-red, almost black. Sometimes the spots are of considerable size. I have no hesitation in saying that the eggs which Harvie-Brown and I brought from the Petchora, which we supposed to be eggs of this bird, were only unusually small varieties of those of the common Willow-Warbler.

I did not meet with the Siberian Chiffchaff further north than 70½°; but on the return journey I continually met with it as far south as Yen-e-saisk′. On these occasions it was carefully tending its newly fledged young. Its plaintive monosyllabic call-note was then often heard; but it appeared to have dropped the *chivit′ chivet.′*

Phylloscopus fuscatus, Blyth.

On my return journey I spent a few days in the middle of August at Yen-e-saisk′, devoting some time to the exploration of the banks of the Yen-e-say′. The country was almost flat, and for miles I wandered across an extent of meadowland which had recently been cut for hay. This meadowland is intersected with numerous half-dried-up river-beds running parallel to the Yen-e-say′. These river-beds are full of tall *Carices* and various water-plants, and are almost concealed by willow trees. Occasionally the water is open. One of the commonest birds in these swamps was *Phylloscopus fuscatus*; what we saw were mostly young birds not fully fledged.

PHYLLOSCOPUS SUPERCILIOSUS (Gmel.).

On the 4th of June, while the ill-fated 'Thames' was in the agonies of its first shipwreck, I was delighted to have my attention called away by the note of this interesting bird, which I recognized at once as the same which I had heard in Gaetke's garden on Heligoland the year before. It is very fairly represented by the word *weest*. The bird soon became very common, frequenting almost exclusively the pine-forests on the banks of the Koo-ray′-i-ka and the Yen-e-say′. It was not particularly shy; and on more than one occasion I watched it for some time at a distance of only a few feet. On one occasion only I heard it make any attempt at a song; this was on the 21st of June. The bird was perched upon the extreme summit of a spruce, and stood shivering its wings, uttering a few plaintive notes, most of them poor and feeble variations on its call-note. On the 26th of June I was fortunate enough to find its nest. Curiously enough I was this time also in company with a Heligolander, Mr. Boiling, the ship-builder of Yen-e-saisk′. Late in the evening we were strolling through the forest between the Koo-ray′-i-ka and the Yen-e-say′. As we were walking along a little bird started up near us, and began most persistently to utter the well-known cry of the Yellow-browed Warbler. As it kept flying around us from tree to tree, we naturally came to the conclusion that it had a nest near. We searched for some time unsuccessfully, and then retired to a short distance, and sat down upon a tree-trunk to watch. The bird was very uneasy, but continually came back to a birch tree, from which it frequently made short flights towards the ground, as if it was anxious to return to its nest, but dare not whilst we were in sight. This went on for about half an hour, when we came to the conclusion that the nest must be at the foot of the birch tree, and commenced a second search. In less than five minutes I found the nest, with six eggs. It was built in a slight tuft of grass, moss, and bilberries, semidomed, exactly like the nests of our Willow-Warblers. It was composed of dry grass and moss, and lined with reindeer-hair. The eggs were very similar in colour to those of our Willow-Warbler, but more spotted than usual, and smaller in size. I did not meet with this bird further north than lat. 70°, nor did I see it on the return voyage.

ACROCEPHALUS SCHŒNOBÆNUS (Linn.).

It is rather remarkable that the Sedge-Warbler should have hitherto been overlooked in Siberia. It arrived on the Arctic circle on the 15th of June, and soon became very abundant; but I did not observe it further north than lat. 67°.

ACROCEPHALUS DUMETORUM, Blyth.

I did not meet with this bird until the 8th of August, on my return journey, in lat. 62°, where it was evidently breeding.

LOCUSTELLA CERTHIOLA (Pall.).

As I passed through Yen-e-saisk′ on my return journey, towards the end of August, I found this rare Grasshopper-Warbler breeding in the swampy thickets near the banks of the river. The young in first plumage from this locality will be described and figured in Dresser's 'Birds of Europe.'

I found it very shy and skulking in its habits. The young birds, some only half fledged, were still in broods; and occasionally I got a shot at one which left the sedges and ventured into the willows. They were calling anxiously to each other, the note being a harsh *tic, tic, tic.*

Authentic skins of this bird in first plumage, now for the first time obtained, are very interesting. They prove that the various skins to be found in collections labelled *L. ochotensis* by Dyboffsky, from Lake Baical, are simply the young of *L. certhiola.* The general colour of the underparts of the young in first plumage is buffish yellow, darkest on the breast and flanks, and inclining to chestnut on the under tail-coverts. In first winter plumage this yellow tinge is retained; but it is lost in the spring moult, the general colour of the underparts being then buffish white, darkest on the breast, flanks, and under tail-coverts. A third state of plumage is that of the adult after the autumn moult, in which the buff of the underparts almost approaches chestnut. In this state (gradually becoming duller by abrasion as the winter wears on) it is the

L. rubescens of Blyth. Jerdon seems to have been acquainted with all three states of plumage. The young and adult in summer plumage he describes under the name of *L. certhiola* (Pall.); but doubtful of the identity of the Siberian and Indian birds, he proposes the name of *L. temporalis* for the latter, in case they should afterwards be found to be distinct. The autumn plumage of the adult he describes as *L. rubescens*, Blyth, but alludes to that ornithologist's opinion that it might be identical with Pallas's bird. Salvadori's *Calamodyta doriæ* is *L. certhiola* in winter plumage from Borneo. When I was in Paris l'abbé David told me that the type of *Locustella minor*, David et Oustalet, was lost; but he assured me, what I was already prepared to assert, that it is a bad species, and the name must sink into a synonym of *L. certhiola*. Full references to all these synonyms will appear in Dresser's 'Birds of Europe.'

LOCUSTELLA OCHOTENSIS, Midd.

Sylvia (*Locustella*) *ochotensis*, Midd. Sib. Reis. ii. p. 185 (1851). Young in first plumage.

Sylvia (*Locustella*) *certhiola*, Midd. Sib. Reis. ii. p. 184 (1851, nec Pall.). Adult.

Locustella japonica, Cassin, Proc. Ac. Sc. Phil. 1858, p. 194. Young.

Locustella subcerthiola, Swinhoe, Ibis, 1874, p. 154. Adult.

Arundinax blakistoni, Swinhoe, Ibis, 1876, p. 332. Young in first winter plumage.

The synonymy of *L. ochotensis* and *L. certhiola* have hitherto been in such hopeless confusion that I am glad to have an opportunity of putting them in something like order. When I was in St. Petersburg the curator of the Museum, with the politeness so characteristic of the Russians, gave me every facility for inspecting types and other interesting skins in the collection. I found that all the skins collected by Middendorff near the shores of the Sea of Ochotsk, labelled respectively *L. certhiola* and *L. ochotensis*, belonged to one species, the former being adult birds, and the latter young in first plumage. The difference between them lay solely in the general colour of the underparts. This was buffish white in the adult birds, and buffish yellow in the young, precisely the difference which I had found only a few weeks before between the adult and young of the very closely allied *L. certhiola.* None of Middendorff's birds, however, were the true *L. certhiola* of Pallas. The name *L. ochotensis,* Midd., therefore stands for this species, with *L. certhiola,* Pall. apud Midd., as a synonym. Besides Middendorff's type I found a fine series of skins of this bird collected by Wosnessensky in Kamtchatka and the Kurile Islands. This bird differs from *L. certhiola* in having the upper parts plain, like *L. luscinioides,* instead of spotted, like *L. nævia.* Young birds have, however, traces of obscure spots on the head and back. In this state it was described by Cassin as *L. japonica* from Japan. The young in first winter plumage was described by Swinhoe as *Arundinax blakistoni,* from the same locality. One of Wosnessensky's skins from Kamtchatka came into Swinhoe's possession, and was described by him as *L. subcerthiola.* It is that of an adult bird, and agrees exactly with a skin in my collection collected by Wosnessensky on Urup island, one of the Kurile Islands, between Kamtchatka and Japan. In the British Museum is a skin from Labuan, in Borneo, where this species winters.

LOCUSTELLA FASCIOLATA (Gray).

Acrocephalus fasciolatus, Gray, P. Z. S. 1860, p. 349.
Acrocephalus insularis, Wallace, Ibis, 1862, p. 350.
Calamoherpe fumigata, Swinhoe, P. Z. S. 1863, pp. 91, 293.
Calamoherpe subflavescens, Elliot, P. Z. S. 1870, p. 243.

It may at first sight appear a somewhat bold step to take to unite two species hitherto considered so distinct as *A. fasciolatus* and *A. insularis,* and a still bolder one, after having married the two species, to send them to spend their honeymoon in the genus *Locustella.* The fact is that they agree in every particular, except in the colour of the underparts. The difference of colour, however, is exactly what we have just found to be the difference between young and adult plumage in two species of the genus *Locustella.* I have already given my reasons in the last number of 'The Ibis' for placing this species in that genus. In the Museum at St. Petersburg are two very beautiful skins of adult birds of this species from the Ussuri river. Young birds have been obtained by Dyboffsky in Daouria, and have been described by Elliot as *C. subflavescens* from the same locality. Swinhoe described the adult passing through China on migration, as *C. fumigata*, and also recorded it from Japan. Wallace described *A. insularis* from Gilolo and Morty; and Gray described his *A. fasciolatus* from skins collected by Wallace in Batchian, Gilolo, and Morty. I think I may fairly claim that all the known facts of the geographical distribution of these two birds are in favour of my theory that they are young and adult of one species.

ACCENTOR MONTANELLUS (Pall.).

I first noticed this bird on the 19th of June, a quiet skulking bird, rarely seen on the wing, and principally frequenting the willows near the banks of the Yen-e-say′. Four days afterwards I had a long chase on the Koo-ray′-i-ka side of the river after a bird whose song I had frequently heard before. It was a short unpretentious song, something like that of our Hedge-Sparrow. The bird was generally on the top of a high tree, where it sang its short song, and went onto another tree. At last I succeeded in shooting it from the top of a pine, and was astonished to find it the Mountain-Accentor. I did not meet with it again until I reached lat. 70½°, where I found it breeding in the island of Mah′-la Brek′-off-sky. Here it was skulking among the willows, like a Grasshopper-Warbler. The nest was within a foot of the ground; but I was so worried with mosquitoes that I neglected to note the materials of which it was composed. The eggs are blue, like those of our Hedge-Sparrow. I did not meet with it further north.

HIRUNDO RUSTICA, Linn.

On the 16th of May a solitary Barn-Swallow appeared. I did not see another until we were within a hundred miles of Yen-e-saisk′ on the return journey. At that town they were common enough.

Chelidon lagopoda (Pall.).

In the 'Proceedings' of the Zoological Society, 1862, p. 320, Swinhoe described a Martin which differs from ours in having the upper tail-coverts white to the tips of the feathers, and the axillaries and wing-lining dark brown. He gave it the name of *C. whitelyi*; but in 'The Ibis,' 1874, p. 152, he pointed out that it is identical with the *Hirundo lagopoda* of Pallas. This bird was the only *Chelidon* which I obtained on the Yen-e-say′. Several pairs arrived on the Arctic circle on the 11th of June, and were soon busy hawking for flies and examining their old nests. In the village of Koo-ray′-i-ka, opposite the mouth of the river of that name, they swarmed in thousands. The nest exactly resembles that of our House-Martin; but the birds seemed to be very capricious in selecting a house where they might trust their young. One house in particular seemed to be the favourite; and here the eaves were crowded with rows of nests, in some places three or four deep. The eggs are, if any thing, larger than those of our bird, but also pure white. I observed this bird up to lat. 69°, where a few pairs were breeding. I could not perceive any difference in the habits or notes of these birds and those of our own species. On the return journey I noticed a colony, doubtless of these birds, which had built their nests against the limestone cliffs of the Kah′-nin Pass, as our bird frequently does in the limestone districts of Yorkshire, the Parnassus, &c. As I passed through Yen-e-saisk′ in the middle of August, the House-Martins were swarming on the church-towers, preparing for departure on their autumn migration.

When these Swallows began to make preparations for breeding, the 'Thames' was riding at anchor in the Koo-ray′-i-ka. Some scores of these birds evidently took a great fancy to the ship, and began to build their nests on the sails under the yardarms.

Cotyle riparia, Linn.

The Sand-Martin arrived on the Arctic circle on the 9th of June. Both on the banks of the Ob and the Yen-e-say′ large colonies of these birds were frequent. I did not see any further north than lat. 67°. Siberian birds, like those of North Europe, are somewhat darker brown above and purer white below than our Sand-Martin.

[To be continued.]

II.—*Remarks on Messrs. Blakiston and Pryer's Catalogue of the Birds of Japan.* By HENRY SEEBOHM.

(Plate I.)

THROUGH the kindness of the Editors of 'The Ibis' two small collections of birds from Japan have been placed in my hands for examination. The first collection contains 38 skins, sent by Mr. Blakiston from Hakodate for identification, to which Mr. Pryer has added 12 skins at Yokohama.

The second collection contains 64 skins, and is the result of a visit paid by Mr. Heywood Jones to the village of Shimbashiri, about 2000 feet above the level of the sea, on the volcanic mountain of Fusiyama, near Yokohama.

The numbers and the names in the subjoined remarks are those used in the 'Catalogue of the Birds of Japan,' by Messrs. Blakiston and Pryer, published in 'The Ibis' of last year (pp. 209–250).

The birds of Japan possess a special interest to the British ornithologist. These islands occupy a somewhat analogous position on the east of the mainland of the Palæarctic region to our own islands on the west of the same great zoological district. Similar facts of geographical situation appear to have produced similar results in the two groups of islands, namely the presence of insular forms differing too slightly from the continental types to admit them to specific distinction. In order that these interesting facts should not be lost sight of, I have been obliged to admit the use of subspecific names. It is the boast of British ornithologists that their system of nomenclature is binomial. When Linnæus substituted a word instead of a sentence to designate a species, he made an immense stride towards simplicity of nomenclature. The practice of Brisson and the earlier ornithologists, if it aimed at scientific accuracy, failed in consequence of the multiplicity of facts with which it had to deal. There seems, however, to be a tendency at the present time to carry the idea of a binomial nomenclature to a pedantic extreme. It is a common practice amongst ornithologists to quote specific names without authorities, under the cover of adhering to a strictly binomial nomenclature. In nine cases out of ten no harm is done by omitting the authority; but in the tenth case it leaves the precise species intended to be discriminated open to doubt. Exactness is the foundation of all scientific research; and the moment any doubt attaches to the meaning of a term, that moment such term ceases to be scientific. The fact that the same specific term has been applied by different ornithologists to different species, makes the addition of the authority to the specific name in many cases a necessity,—an unwelcome necessity, no doubt, to the binomial nomenclator, but not the less an absolute necessity to the truly scientific student. It would be well if the complication stopped here. Unfortunately, in too many instances, a difference of opinion exists amongst eminent ornithologists as to which species were intended to be discriminated by certain terms made use of by some writers. For example, *Saxicola stapazina* is a name intended to discriminate a certain species of Chat. *Saxicola stapazina* (Linn.) professes to restrict that name to the species of Chat to which Linnæus gave the name of *Motacilla stapazina*; but since the publication of Dresser's 'Birds of Europe' the title *Saxicola stapazina* (Linn.) ceases to have a definite meaning, and the reader must always be in doubt as to whether a bird so described be the *Saxicola stapazina* of Linnæus *apud* Latham, Vieillot, Temminck, and a host of other authors, or the *Saxicola stapazina* of Linnæus *apud* Dresser, two totally distinct birds. At all costs scientific accuracy must be preserved; and I see no possible alternative but to complicate our ornithological nomenclature still further by calling the Black-eared Chat *Saxicola stapazina* (Linn.) *et* Dresser.

It would be well for the simplicity of ornithological nomenclature if its complications could even stop here. From the days of Linnæus to those of Wallace and Darwin most ornithologists were agreed that species were divided by a hard and fast line, and that the difficulty which the student had to surmount was the discovery of the lines of demarcation which nature herself had drawn between the various specially created species. Now that most scientific ornithologists have adopted the theory that these hard and fast lines seldom exist in nature, that species were not specially created but were gradually developed according to certain more or less known fixed laws, and that consequently there must be at any one period of the world's history a large number of species in process of differentiation, our difficulties are largely increased. The question naturally arises, What is a species? We must either draw an artificially hard and fast line where nature has drawn none, or we must accept nature as she is, and make the best of the complications which necessarily arise in our nomenclature in attempting to harmonize it with facts which we cannot, as scientific students, ignore. Hence it appears to me to be absolutely necessary for modern ornithologists to recognize the existence of *subspecies*—that is, species in the process of differentiation, incipient species, where the intermediate forms have not yet died out, but where a series gradually leading from one extreme to the other may be obtained. I fully recognize the danger of such a practice. It is easy to imagine the abuses of which it is capable. Inexperienced ornithologists will be tempted to think that differences of age, sex, and season, to say nothing of accidental individual variations, are intermediate forms worthy of the rank of a subspecies; and our nomenclature may run the risk of being still more flooded with names as injurious as the useless synonyms of the elder Brehm. I am, however, of the opinion that these difficulties will have, sooner or later, to be faced. It seems to me that the scientific ornithologist cannot afford any longer to ignore the existence of subspecies in nature, or to attempt to make ornithological nomenclature simpler than the facts of nature which it is intended to discriminate.

Another point to which I wish to call the attention of ornithologists is the recognition of *subgenera*. The non-recognition of subgenera is causing such a multiplication of genera that ordinary memories are unable to cope with the difficulties of modern nomenclature. Suborders and subfamilies are almost universally recognized; but it is feared by some that the adoption of subgeneric names is a virtual violation of the system of binomial nomenclature. It must constantly be borne in mind that genera are as artificial as species. There is no hard and fast line between different genera except in those instances where the intermediate species have died out. The divergence of opinion as to the value of specific differences is small compared with that which we find when generic characters are the question in dispute. To a very large extent the subdivision of genera is a matter of convenience. Very large genera are unwieldly; and the temptation to restrict them for the sake of simplifying the identification of skins is very great. This process of simplification might be accomplished by means of subgenera having as accurate a definition as the circumstances will admit. These subgenera would form no part of the name of the bird, which would remain binomial. They would not be quoted in designating a species any more than the name of the family or subfamily. The object of introducing subgenera is to facilitate the identification of species and to stop, if possible, the unnecessary multiplication of genera.

I have endeavoured to carry out these views in the following attempt to correct the nomenclature, as well as to discriminate the species of the birds hitherto found in Japan.

2. MORMON CIRRHATUM (Gm.).

The skin sent (No. 1883) is correctly identified.

3. PHALERIS MYSTACEA, Pall.

The two skins sent by Mr. Whitely were identified by Swinhoe (Ibis, 1867, p. 209) as *P. cristatella* (Pall.). Their identification was doubtless correct, the length of wing, 5½ in., being too large for the other species.

14. PODICEPS CORNUTUS, Gm.

From his description of the bird (Ibis, 1875, p. 456) Swinhoe evidently meant to identify the Japanese bird with our British Eared Grebe, *Podiceps nigricollis*, Sund.

16. Colymbus adamsi, G. R. Gray.

The skin sent (No. 1349) is the Black-throated Diver, *C. arcticus,* Linn. There is, however, no reason to suppose that Swinhoe was wrong in his identification of *C. adamsi* (Ibis, 1877, p. 146). The latter bird is a form of *C. glacialis,* with a white bill, found in Siberia &c., and probably entitled to specific rank.

23. Anser erythropus, Linn.?

In the Swinhoe collection is a skin (No. 2007), a female, dated "Tokio market, Jan. 1876," which is unquestionably *Anser erythropus.* The wing from the carpal joint measures 15½ in. Two females of *A. erythropus,* from the Yen-e-say, measure respectively 13¼ and 13¾. These measurements are made with a tape across the upper surface of the wing.

29. Anas boschas, L.

In Swinhoe's collection are two skins of the Mallard from Hakodate, (No. 1190) a male and (No. 1717) a female.

35. Dafila acuta (L.).

In Swinhoe's collection are two skins from Awomori, (No. 1183) a male and (No. 1185) a female.

36. Querquedula crecca (L.).

In Swinhoe's collection are two skins from Yesso, (No. 1444) a male and (No. 1719) a female.

39. Querquedula formosa (Georgi).

In Swinhoe's collection are two skins, (No. 1180) a male from Anomori and (No. 1981) a female from Yeddo.

43. Fuligula cristata (L.).

The skin sent (No. 2266) is a male, in full breeding-plumage, of the Tufted Duck, *Fuligula cristata* (Leach).

45. Fuligula nyroca (Gm.).

The skin sent (No. 45), from the Yokohama market, appears to be correctly identified. It is an immature male of *Nyroca ferruginea* (Gm.).

47. Clangula histrionica (L.).

In Swinhoe's collection are two skins, (No. 1449) an immature male from Hakodate and (No. 1452) a female from South Yesso.

48. CLANGULA GLAUCION (L.).

In Swinhoe's collection are two skins, (No. 1028) a male and (No. 1448) a female, both from Hakodate.

49. HARELDA GLACIALIS (L.).

In Swinhoe's collection is the skin of a female Long-tailed Duck (No. 1025) from Hakodate.

52. ŒDEMIA AMERICANA, Rich.

The skin sent (No. 2152), from Hakodate, is that of the American form of the Black Scoter, *Œdemia americana* (Swains.), with the entire protuberance at the base of the upper mandible yellow.

53. MERGELLUS ALBELLUS (L.).

The skin sent (No. 52), from the Yokohama market, is a female Smew, *Mergus albellus*, Linn.

62. STERNA, sp. inc.

The "wholly white" Tern referred to may be an albino, or possibly *Gygis candida* (Gmel.), though that species has not hitherto been recorded from any locality so far north as Japan.

63. STERNA, sp. inc.

The skin sent (No. 2306) from Eturup, one of the Kurile Islands, has been identified by Mr. Howard Saunders as *Sterna longipennis*, Nordm. In Lord Tweeddale's collection there is a skin of this species from Yesso (P. Z. S. 1876, p. 650).

64. LARUS CRASSIROSTRIS, Vieill.

This Gull was originally described from Japan.

65. LARUS GLAUCUS, L.

Mr. Howard Saunders in his paper on the Larinæ, in the P. Z. S., mentions having identified skins of *L. glaucus*, Fabr., obtained by Capt. Blakiston at Hakodate.

66. LARUS GLAUCESCENS, Brandt.

Mr. Howard Saunders informs me that he has identified skins of *L. glaucescens,* Licht., obtained by Capt. Blakiston at Hakodate.

67. Larus occidentalis, Aud.

Mr. Howard Saunders informs me that the skins in Swinhoe's collection from Japan, labelled *L. occidentalis,* were certainly not that species, but were the Mediterranean Herring-Gull, *L. cachinnans,* Pall.

L. affinis, Reinh., has not yet been recorded from Japan; but there cannot be much doubt that it passes the coasts of the Japanese islands on migration, since the Museum of St. Petersburg possesses skins of this species collected both in spring and autumn by Wosnessensky at Ayan on the sea of Ochotsk.

68. Larus niveus, Pall.

Mr. Howard Saunders informs me that the Gulls from Japan attributed to this species by Swinhoe are undoubtedly *Larus canus,* Linn.

69. Larus marinus, L.

Skins of this Gull collected by Capt. Blakiston in Japan have been carefully identified by Mr. Howard Saunders.

70. Larus tridactylus, L.

Skins of *Rissa tridactyla* (Linn.) from Japan have not yet found their way to this country.

71. Chroicocephalus ridibundus (L.).

Mr. Howard Saunders gives Japan as a winter residence only of *Larus ridibundus,* Linn. (P. Z. S. 1878, p. 201). On the other hand, Capt. Blakiston's observations seem to prove that this bird is only a summer visitor to Yesso (Ibis, 1874, p. 165; and 1878, p. 217).

Larus leucopterus, Faber, must also be added to the Japanese list, on the authority of a skin collected by Capt. Blakiston and identified by Mr. Howard Saunders (P. Z. S. 1878, p. 166).

We must also include *Larus delawarensis,* Ord, on the authority of a skin in the collection of Mr. Howard Saunders, obtained by Mr. H. Whitely at Hakodate (P. Z. S. 1878, p. 177).

74. Fulmarus glacialis (Linn.).

The skin sent (No. 2048) is the Pacific form of the Fulmar. It is said to be darker in colour than our bird, and to have somewhat slenderer bill and feet. It is the *Procellaria pacifica* of Audubon and the *Fulmarus pacificus* of Lawrence, but not the *F. rogersii* of Cassin. I have not had access to a sufficiently large series of either form to give any opinion as to its claim to specific or subspecific rank.

79. Charadrius fulvus, Gm.

There are several skins of the eastern Golden Plover in Swinhoe's collection from Japan. *C. virginicus* is a distinct species, a larger bird, and has not yet been found in Asia.

81. Ægialitis dubia (Scop.).

The skin sent (No. 2252) is that of the European Little Winged Plover, probably the *Charadrius dubius* of Scopoli, and certainly the *Charadrius curonicus* of Gmelin.

83. Ægialitis ruficapilla (Temm.).

Two skins sent (Nos. 1738 and 1411) are too small for *Æ. geoffroyi* (Wagl.), and doubtless belong to the nearly allied species, *Æ. mongolica* (Pall.), of which *Æ. ruficapilla* (Temm.) is a synonym. The former is a male in breeding-plumage from Hakodate, and the latter a female in autumn plumage from South Yesso.

These species scarcely differ in colour, and very slightly in size. The best character by which they may be separated is the length of the convex portion at the end of the upper mandible, which in *Æ. geoffroyi* varies from ·41 to ·51 inch, whilst in *Æ. mongolica* it varies from ·3 to ·34. The other differences of measurement are scarcely so marked, and require to be carefully measured, whereas the difference in the shape of the bill is apparent at a glance. In the length of the wing from the carpal joint *Æ. geoffroyi* varies from 5·6 to 5·2, and *Æ. mongolicus* from 5·3 to 5 in. In length of culmen *Æ. geoffroyi* varies from 1·15 to 1·05, and *Æ. mongolica* from ·9 to ·7; and in length of tarsus *Æ. geoffroyi* varies from 1·5 to 1·35, and *Æ. mongolica* from 1·3 to 1·2.

Both Harting (Ibis, 1870, p. 379) and Oustalet (Ois. de la

Chine, p. 426) give Japan as a locality for *Æ. geoffroyi*; and in Dresser's collection there is a skin of *Æ. veredus* (Gould), obtained by Capt. Conrad at Saigon; so that both these birds must be added to the Japan list. *Æ. veredus* may at once be recognized by its smoke-gray axillaries, which in *Æ. mongolica* and *Æ. geoffroyi* are pure white.

87. STREPSILAS INTERPRES (L.).

The skin sent (No. 85), from the Yokohama market, is that of the common Turnstone in winter plumage.

88. HÆMATOPUS OSCULANS, Swinhoe.

The skin sent (No. 86), from the Yokohama market, is correctly identified. It differs from the common Oystercatcher in having a long bill (the culmen measures 3·4 in.), and in having the longest upper tail-coverts tipped with black.

98. TRINGA TENUIROSTRIS, Horsf.

This bird should stand as *T. crassirostris*, T. & S. (See Ibis, 1874, p. 147.)

102. TRINGA DAMACENSIS, Horsf.

A skin in the Swinhoe collection (No. 1681), a female, apparently in first winter plumage, dated "South Yezo, Aug.," is quite distinct from *T. minuta*, Leisl. Although of the same size, the feet of the Japanese bird are much larger, the middle toe being longer by the whole length of the claw. In *T. minuta* the shafts of all the primaries are white; but in *T. damacensis* only the first shaft is whitish, the rest being brown. This bird should stand as *T. ruficollis*, Pallas.

108. SCOLOPAX RUSTICULA, L.

A skin of a male (No. 1178) in the Swinhoe collection, dated "Hakodate, April," agrees exactly with European examples.

109. GALLINAGO AUSTRALIS (Lath.).

A skin of a male (No. 1228) in the Swinhoe collection, dated "Hakodate, May," agrees with Australian examples. It is a much larger bird than *G. major* (Gm.), and has the broad white feathers on each side of the tail replaced by narrow coloured feathers, almost as stiff as those of *G. stenura* (Kuhl).

110. GALLINAGO SCOLOPACINA, Bp.

Two skins (No. 1333 and 1335) in the Swinhoe collection, both dated "♂, May, Hakodate," agree exactly with European examples. Another skin (No. 1503), a female shot at Hakodate in September, was identified by Swinhoe (Ibis, 1875, p. 454) with the American species *G. wilsoni* (Temm.). On comparing it with skins of *G. scolopacina*, Bp., shot in Heligoland in November, I have little doubt that Capt. Blakiston is perfectly right in pronouncing the bird to be that species in autumn plumage. The axillaries of the Heligoland bird are barred quite as uniformly as those of the Japan skin.

120. PLATALEA MAJOR, T. & S.

121. PLATALEA MINOR, T. & S.

These two birds are now considered by Schlegel and others to be merely large and small examples of a species of Spoonbill very nearly allied to, but specifically differing from, the European bird.

126. ARDETTA, sp. inc.

The skin sent (No. 2042) appears to be an immature bird of *Ardetta sinensis* (Gm.).

128. EGRETTA MODESTA, Gray.

The Great Egret of China and Japan is generally considered by ornithologists to be only a small race of our European *Herodias alba* (Linn.), scarcely deserving of specific rank.

129. EGRETTA INTERMEDIA, Hasselq.

This bird, *Herodias intermedia* (Wagl.), appears to be a good species.

130. EGRETTA GARZETTA (Linn.)?

The skin sent (No. 130) is that of the Little Egret, *Herodias garzetta* (Linn.).

133. Grus cinerea, Linn.

The Japanese bird is not usually considered specifically distinct from our Common Crane, which stands as *Grus communis*, Bechst.

137. Grus, sp. inc.

The description given by Mr. Blakiston of this bird agrees best with *Grus antigone*, Linn.

150. Coturnix japonica, T. & S.

Ornithologists differ in opinion as to whether the Japan bird is specifically distinct from our common Quail. The only constant difference is said to be the dark throat. It may probably rank as a subspecies, with intermediate forms occurring in China.

156. Cuculus, sp. inc. "Hototogisu."

The skin of a Cuckoo brought by Mr. Heywood Jones from the mountain of Fusi-yama, near Yokohama, and identified by Mr. Pryer as the "Hototogisu," appears to belong to *Cuculus poliocephalus*, Latham.

This bird is a miniature of our European Cuckoo, the wing from carpal joint measuring from 6 to 6½ inches. According to Jerdon, *C. himalayanus*, Gould, *C. bartletti*, Layard, *C. intermedius*, Vahl, *C. lineatus*, Lesson, and *C. tenuirostris*, Temm., are synonyms of this species, to which we must add *C. tamsuicus*, Swinhoe.

157. Cuculus, sp. inc. "Juichi."

Two skins brought by Mr. Heywood Jones from the volcano near Yokohama are identified by Mr. Pryer as the "Juichi." The nearly even tail and the longitudinal streaks on the breast identify them as immature birds of some species of *Hierococcyx*. They further agree exactly with both the description and plate of *C. sparverioides*, Vig., of Schrenck's 'Vögel des Amurlandes' (p. 257, pl. x.). We may safely go one step further, and identify the Japan and Amoor birds with *C. hyperythrus*, Gould. According to Jerdon this bird should stand as *Hierococcyx fugax*, Horsf., of which *C. flaviventris*, Scop., *C. radiatus*, Gmel., and *C. pectoralis*, Cab., are additional synonyms.

159. Picus major, L.

A skin brought from the neighbourhood of Yokohama by Mr. Heywood Jones agrees with European examples.

161. Picus kisuki, T. & S.

A skin brought by Mr. Heywood Jones agrees with Temminck and Schlegel's description.

Picus minor, Linn.

The skin sent (No. 2346), from Yezo, is somewhat intermediate in colour and size between the large brilliant form of *P. minor* found in North Europe and Asia, and the small dingy race found in West and Southern Europe.

168. Halcyon coromandeliana (Scop.).

The correct name of this Kingfisher is *Halcyon coromanda* (Bodd.). In Swinhoe's collection there is a skin of this bird collected by Mr. Blakiston at Hakodate, which is no doubt the skin referred to. *Ceryle rudis* must therefore be struck out of the list of Japan birds.

170. Zosterops japonica, T. & S.

The skin sent (No. 171) is correctly identified.

172. Hirundo gutturalis, Scop.

Dresser unites this bird with *H. rustica*, Linn., on the ground that intermediate forms occur. In Swinhoe's collection there is a fine series of twenty-six skins of *H. gutturalis* from Japan, Peking, Formosa, Amoy, Hongkong, and Hainan. In one skin from Amoy the pectoral band which separates the chestnut throat from the white belly is almost if not quite as dark as in European examples; but in most cases it is very narrow, and frequently only observable on the sides of the breast. In two skins from Amoy a broad black band crosses the longest under tail-coverts near their apex. Young birds, besides having the outside rectrices short, have less chestnut on the forehead and are much paler in colour on the throat. Adult birds dated February, March, May, July, November, and December show no seasonal variation of colour. Until the intermediate forms have died out, it will perhaps be best to consider the China and Japan birds as *Hirundo rustica,* Linn., subspecies *gutturalis,* Scop. Such a form of nomenclature may be complicated, but it is not more complicated than the form which it attempts to discriminate. It would be a great pity if, in consequence of a too pedantic adherence to supposed simplicity of nomenclature, such an interesting local form as that under consideration should be ignored or forgotten for want of a name.

173. Cecropis japonica, T. & S.

The common Indian Red-rumped Swallow, doubtfully the *Hirundo daurica* of Linnæus, but certainly the *Hirundo erythropygia* of Sykes, is the eastern form of *H. rufula,* Temm. It differs from the latter bird in being more distinctly striped on the underparts, and in having the chestnut ring round the nape interrupted by the black of the head joining that of the back. The chestnut band across the rump varies in width from ·6 to 1·2 in., and in colour from pale to deep chestnut, and has generally a striolated appearance owing to the feathers having dark shafts. The latter character, however, is often absent. These variations have given rise to several synonyms, *H. japonica,* Temm. et Schl., *H. arctivitta,* Swinh., &c. Swinhoe's collection contains a series of thirteen of these birds; but none of them are from Japan. My own opinion is that the variations alluded to are only such as arise from difference of age, sex, and season, and that none of them entitle their possessors to rank as subspecies or local forms.

The Swallow mentioned by Capt. Blakiston from Kamtchatka (Ibis, 1878, p. 386) is no doubt *H. americana,* Wilson, the oldest name of which bird is *H. horreorum,* Barton, as has already been pointed out by Swinhoe (Ibis, 1876, p. 331)*.

174. Cotyle riparia (L.).

Four skins sent (Nos. 2501, 2502, 2503, & 2504) agree exactly with skins from Archangel, the Petchora, and the Yenesay. The primaries and the tail-feathers are perceptibly darker than in the British and South-European form. The difference, however, is not sufficient to found even a subspecies upon.

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* [But if, as we believe to be the case, the N.- and S.-American Swallows are identical, *H. erythrogastra,* Bodd., is the oldest name for the species.—Ed.]

176. Cypselus pacificus (Lath.).

The skin sent (No. 2188) is correctly identified.

181. Corvus corax, L.

The skin sent (No. 2304), from Eturup, one of the Kurile Isles to the north of Japan, is quite as large as our Raven. It measures 17 inches in length of wing, and has quite as large a beak. I cannot detect any difference in the colour or degree of gloss of either the upper or under parts. It has, however, the wing-formula of a Crow, and not of a Raven. The first and second primaries are too short for those of the Raven. The skin is dated September; and the wings have not yet completed their full growth since the autumn moult, the first and second primaries in both wings being still "in the pen." The probability is that the skin is correctly named.

182. Corvus pastinator, Gould.

The skin sent (No. 2182) is correctly identified.

195. Lanius excubitor, Vig.?

This bird will most likely prove to be *L. major*, Pall., a subspecies of *L. excubitor*.

197. Butalis latirostris (Raffles).

The skin sent (No. 2407) is *Hemichelidon latirostris* (Raffles).

202. Pericrocotus cinereus, Lafr.

The skin sent (No. 2218) is correctly identified.

205. Parus ater, L.

The Japanese Cole Tit appears to be the same species as the European bird. One skin in the Swinhoe collection (No. 1152) has some of the occipital feathers longer than usual, and forms an intermediate link between *P. ater* and *P. pekinensis*. The latter bird was described by David in 'The Ibis' (1870, p. 155); and a skin collected by him is in the Swinhoe collection. At best it can only rank as a subspecies, and that a somewhat doubtful one. Two skins in the Swinhoe collection from the Ussuri river, and one collected by Schrenk also in the valley of the Amoor, agree with European skins, whilst a second skin from the Amoor has some of the occipital feathers as much developed as in the intermediate forms previously mentioned from Japan. Other skins from Japan, as well as a skin which I procured at Yene-saisk, in Central Siberia, cannot be distinguished from European skins.

206. Parus borealis, Selys.

I have lately received a fine series of Marsh-Tits from Kras-no-yarsk, in Central Siberia. I had already a good series of these birds, and have now had an opportunity of comparing them with the skins in Dresser's collection and in the Swinhoe collection. The whole series comprises skins from England to Japan. English skins are the brownest. Skins of *P. palustris*, Linn., from Italy and Asia Minor are a shade paler, and cannot be distinguished from Chinese skins. Two skins from Japan are decidedly greyer, and form an intermediate link between *P. palustris* and *P. borealis* from Norway. Skins from Archangel are slightly greyer still, but not so grey as skins from the Petchora, the Ob, and the Yenesay, whilst the greyest skins of all are those from Kras-no-yarsk and Lake Baical. The black of the head extends lowest down the back in grey skins from Siberia, and in intermediate skins from Japan; it is less developed in greyish skins from Archangel, and least so in greyish skins from Norway and brown skins from Europe and China.

The conclusion I come to is that there is only one species of Marsh-Tit, which may be split up into an indefinite number of ill-defined subspecies, of which the following may be most worthy of record:—

P. palustris. Back brown. Black of head extending to the nape.

P. palustris, subspecies *borealis.* Back grey. Black of head extending to the nape.

P. palustris, subspecies *japonicus.* Back greyish brown. Black of head extending onto the upper back.

P. palustris, subspecies *camtschatkensis.* Back pale slate-grey. Black of head extending onto the upper back.

207. Parus minor, T. & S.

A skin (No. 1119) in the Swinhoe collection from Hakodate agrees with the plate in the 'Fauna Japonica,' and with skins from China in the same collection. This is a very good species, and differs from skins of *P. major*, Linn., in my collection from Heligoland, Asia Minor, and Kras-noyarsk in Siberia, in being somewhat smaller in size, and in having the greenish yellow of the underparts replaced by buffish white.

208. Parus varius, T. & S.

A skin in the Swinhoe collection (No. 1195) labelled "♂, Hakodate, April," agrees with the plate in the 'Fauna Japonica.'

Since the article on the birds of Japan was published I have received a skin of an *Ægithalus* from Capt. Blakiston (No. 2545), labelled "♂, Nagasaki, Japan, Feb." This bird is *Æ. consobrinus*, Swinhoe (P. Z. S. 1870, p. 133). It agrees exactly with the type in the Swinhoe collection from China. *Ægithalus pendulinus* (Linn.) seems to be subject to as much variation as his cousins just spoken of; Severtzoff described four supposed new species from Turkestan, but he afterwards reduced them to two. It is impossible to form any opinion as to the probability of any of these forms being entitled to rank as subspecies. In the absence of any evidence to the contrary, I am inclined to pronounce the skin from Japan and Swinhoe's type of *Æ. consobrinus* to be females, or not fully adult males, of *Æ. pendulinus*. They are scarcely to be distinguished from a skin of a female in my collection from Asia Minor, and another from Piedmont in Dresser's collection. Capt. Blakiston writes, "I found three specimens among some skins sent me by Mr. F. Ringer, of Nagasaki. Two I retain, one a male identical with that sent you now, and the other a female, which differs in wanting the black line through the eye, and chestnut collar on the hind neck. The head is dull brown instead of ash; and altogether the plumage is less brilliant." This description I take to be that of a bird of the year. It agrees very closely with the figure of the young of *Æ. pendulinus* in Dresser's 'Birds of Europe.'

211. Sitta europæa, L.

A skin (No. 1153) from Hakodate agrees exactly with skins from the Yen-e-say, having the underparts almost pure white. It is the *Sitta uralensis*, Licht., of some authors; but the difference is not sufficient to entitle it to more than subspecific rank.

213. Accentor, sp. inc.

Probably *A. erythropygius*, Swinh., figured in the P. Z. S. 1870, p. 124, pl. ix.

214. Pipastes agilis, Sykes.

Pipits from Japan are not uncommon in collections. I have never seen more than one species of Tree-Pipit from these islands, *Anthus maculatus*, Hodgson. This is no doubt the species intended to be identified by Swinhoe as *P. agilis*. This latter name has lately been proved to be a synonym of our European bird, *A. trivialis*, Linn. ('Stray Feathers,' iv. p. 278).

215. Anthus japonicus, T. & S.

In Swinhoe's collection there are three skins of this species—two from Ningpo in China, and one from Yesso (Blakiston, No. 1566). These skins agree with the description and plate in the 'Fauna Japonica,' and with the type in the Leyden Museum, and are in my opinion *Anthus ludovicianus*, Gm. This bird is common in Alaska; and I have a skin in my collection collected by Wosnessensky on Urup, one of the Kurile Islands between Yesso and Kamtchatka.

216. Anthus, sp. inc.

The skin sent (No. 2056) is an undoubted specimen of *A. cervinus*, Pall.

217. Motacilla japonica, Swinh.

In my paper on the ornithology of Siberia in 'The Ibis' (1877, p. 346), I have endeavoured to show that there are two species of White Wagtail in Japan—*M. lugens*, T. & S., and a second species to which I have given the name of *M. amurensis*.

218. Motacilla melanope, Pall.

This is the common Grey Wagtail of Europe (*Motacilla boarula* auctorum, nec Scopoli).

219. Calamodyta maacki, Schrenck. }
222. Herbivox cantillans?, T. & S. }

The two skins sent are *Acrocephalus bistrigiceps*, Swinh. (Ibis, 1860, p. 51, Jan.)—a name which takes precedence, though only by five months, of *Salicaria* (*Calamodyta*) *maacki*, Schrenck (Reis. u. Forsch. im Amurlande, i. p. 370, 1860, June).

220. Calamodyta insularis, Wall.

Correctly identified by Swinhoe, who described this species as *Calamoherpe fumigata*. I have endeavoured to prove (see above, p. 15) that both these names must give way to *Acrocephalus fasciolatus*, Gray; and in 'The Ibis' for 1878, p. 490, I have pointed out that this bird is a *Locustella*, and must stand as *Locustella fasciolata* (Gray).

223. Herbivox cantans, T. & S.

After carefully examining the series of types of *Salicaria cantans* and *S. cantillans* in the Leyden Museum, I have no hesitation in referring them to one species. The larger birds are principally males, and the smaller ones females. They vary in length of wing from 2·2 inches to 2·7. The name *cantillans* must therefore sink into a synonym of *cantans*.

This species is very nearly allied to *Arudinnax canturiens*, Swinh., but differs from the Chinese bird in being more olive in colour. In 1871 (P. Z. S. p. 353) Swinhoe removed these birds from the genus *Arundinax*, and placed them in a new genus *Herbivox*. In this, however, he was forestalled by Salvadori, who in the previous year (Atti R. Acc. d. Sc. di Tor. v. p. 510) had established the genus *Homochlamys* for their reception. It is somewhat remarkable that neither of these authors mentions, as a character of his new genus, the important fact that these birds have only ten instead of twelve tail-feathers. Both these generic terms will, however, in all probability have to be consigned to the limbo of synonyms.

The genus *Cettia* of Bonaparte (1838), of which *C. sericea* is the type, appears to me to be capable of embracing a small group of about a dozen species distinguished by having only ten tail-feathers. They have moderately slender bills with feeble rictal bristles, very rounded wings, the first primary being more than half the length of the second, and a moderately rounded tail, the outside feathers being generally three fourths the length of the longest. The tarsus and feet are robust, the former indistinctly scutellated in front. This genus might contain *Cettia sericea*, Bon., *C. canturiens* (Swinh.), *C. cantans* (T. & S.), *C. minuta* (Swinh.), *C. rodericana* (Newt.), *C. brunneifrons* (Hodgs.), *C. major* (Hodgs.), *C. flavolivacea* (Hodgs.), *C. pallidipes* (Blanf.), *C. assimilis* (Gray), *C. fortipes* (Hodgs.), and *C. pallida* (Brooks); but I think that the three latter names will be found to be synonyms, *C. fortipes* (Hodgs.) being the oldest. All the birds in this genus are more or less remarkable for having the feathers of the rump much developed.

224. Arundinax blakistoni, T.
228. Locustella subcerthiola, Swinh.

I think there can be no doubt that the former of these birds is the young in first winter plumage, and the latter the adult of *Locustella ochotensis*, Middendorf.

225. Phyllopneuste coronata, T. & S.
226. Phyllopneuste xanthodryas, Swinh.

In Mr. Dresser's and Lord Tweeddale's collections are skins of *Phylloscopus borealis* (Blasius) from Japan. In the British Museum is a skin of *P. xanthodryas*, Swinh., obtained by Capt. St. John at Hakodate; and in Lord Tweeddale's collection is a skin of *P. tenellipes*, Swinhoe, labelled "Hakodate, 5th May, 1865." Skins of *P. coronatus*, T. & S., from Japan are not uncommon in collections.

229. Locustella, sp. inc.

This will probably prove to be *Locustella hendersoni* (Cassin), originally described from a skin obtained at Hakodate. From the description of this bird it appears to be the same as *Locustella minuta*, Swinhoe, an intermediate form between *L. macropus*, Swinhoe, and *L. lanceolata* (Temm.). Probably all four names will hereafter be proved to be synonymous. The only difference appears to be in the amount of striation on the underparts; and this is a character which in the not very distantly allied *Acrocephalus aquaticus* (Gm.) is subject to great variation.

230. Locustella brunneiceps (Temm.).

The skin sent (No. 2210) does not appear to differ from our European *Cisticola schœnicola*, Bonap., or, as I suppose by law of priority it must now stand, *C. cursitans* (Frankl.).

231. Troglodytes fumigatus, T. & S.

A skin of this species collected near Yokohama by Mr. Haywood Jones is a trifle darker in colour and somewhat more distinctly barred on the back than a skin from Hakodate in the British Museum; but the difference is scarcely sufficient to establish even a subspecies upon it.

The Japanese form of the Wren is intermediate between *T. nipalensis* from Cashmere, Simla, and Nepal, and *T. hiemalis* from Toronto and Vancouver's Island. The general colour both above and below is lighter, redder, less grey than in the former species; and more distinctly barred, especially on the back, and much darker-coloured on the throat and breast than in the latter species.

232. Regulus japonicus, Bp.

The skin sent (No. 234) is referable to the above species. It is decidedly greyer on the hind neck than our bird is; nevertheless it is not recognized by Mr. Dresser in the 'Birds of Europe' as distinct from *Regulus cristatus*, Koch. It is a fairly good subspecies.

243. Turdus sibiricus, Pall. }
250. Turdus, sp. inc. }

This latter bird is undoubtedly an adult male of *Turdus sibiricus*, Pall.

244. Turdus pallidus, Gmel.

The skins sent (No. 247) belong to the true *T. pallidus* of Gmelin, without a white eye-stripe and with the white on the outside tail-feathers largely developed. The bird with the dark throat I take to be fully adult. The white throat I take to be a sign of immaturity, as it is frequently accompanied by pale tips to the wing-coverts and the rudiments of an eye-stripe. This Thrush is the *T. daulias* of the 'Fauna Japonica.'

247. Turdus obscurus, Gmel.

It is very curious that this Thrush, figured and described in the 'Fauna Japonica' as *T. pallens*, Pall., should never have been recorded from Japan by any of our English collectors. In Siberia I found it the easiest species of Thrush to shoot, much less wild and shy than its congeners. Probably it may be only an accidental visitor to Japan; or possibly the example described by Temminck and Schlegel may have been a cage-bird.

254. Emberiza ciopsis, Bp.

This Bunting is the *E. cioides* of the 'Fauna Japonica;' but that name, having been previously applied to a nearly allied species by Brandt, is superseded by *E. ciopsis* of Bonaparte. The two species are quite distinct, though Swinhoe unites them in his catalogue of the birds of China (P. Z. S. 1871, p. 388). Among the Japanese skins brought over by Mr. Heyward Jones is a pair of *E. ciopsis*, which I have compared with a fine series of *E. cioides* just received from Kras-no-yarsk in Central Siberia. The Japanese bird has black cheeks, and a pale chestnut breast, scarcely darker than the belly; whereas the Siberian bird has very dark chestnut cheeks, and a gorget of dark chestnut across the breast, in strong contrast to the paler belly.

A third form of these very nearly allied species is to be found in *Emberiza cioides*, Brandt, subsp. *gigliolii* of Swinhoe. It is a small form of *E. cioides* which is found in China. A series of thirteen males of *E. cioides* from the Yen-e-say vary in length of wing from 3·5 to 3·05, whilst a series of ten males of *E. gigliolii* from China vary from 3·08 to 2·8. The females present an equal variation in size. Four females from the Yenesay vary in length of wing from 3·14 to 2·95, whilst seven females from China vary from 2·85 to 2·66.

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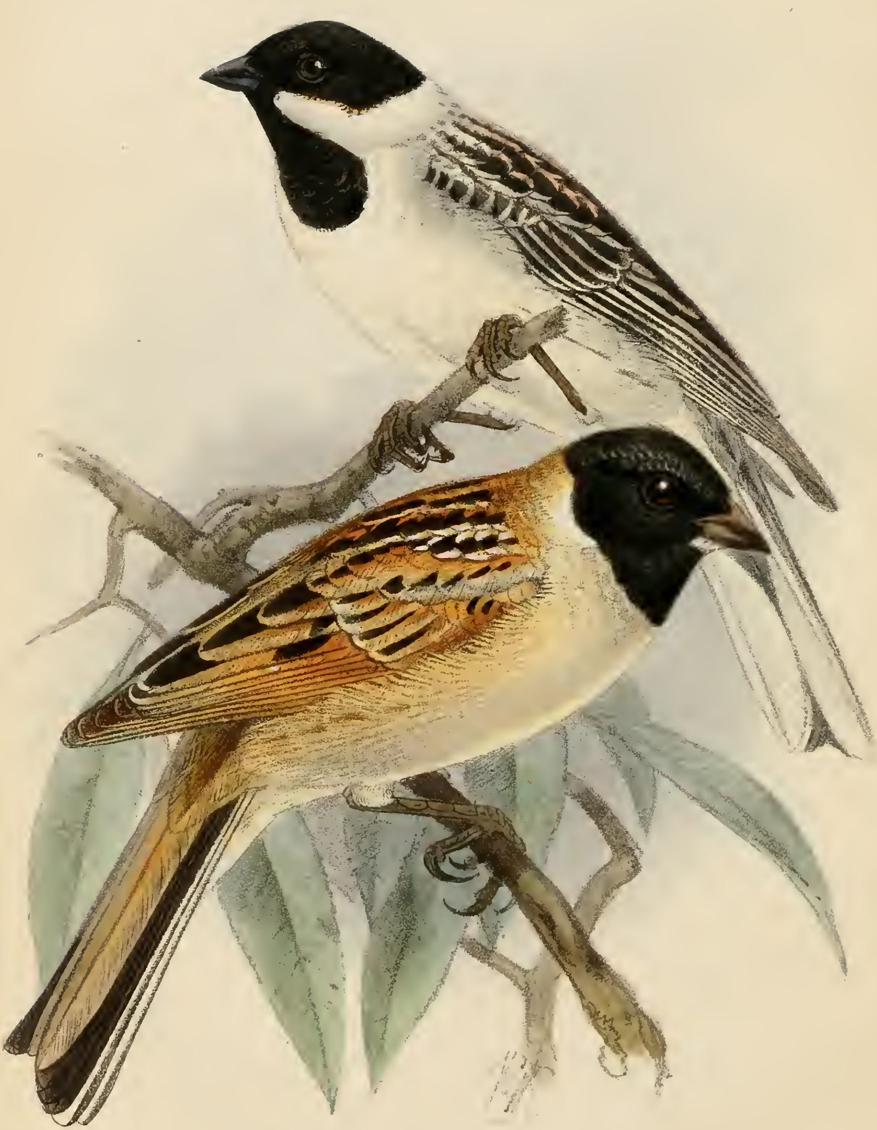

J G Keulemans lith.

Hanhart imp.

1 EMBERIZA PASSERINA
2 " YESSOENSIS

EMBERIZA YESSOENSIS. (Plate I. fig. 2.)

"*Schœnicola yessoensis,* Swinh." Blak. et Pryer, Ibis, 1878, p. 243. no. 263.

This Bunting (of which I give a figure of an adult male shot at Hakodate in April) appears to be an excellent species. It was first described by Capt. Blakiston in 'The Ibis' (1863, p. 99) as "*Emberiza minor,* Midd. apud Swinhoe." In 'The Ibis' for 1874, p. 161, Swinhoe corrected the error which he had induced Capt. Blakiston to make, and attempted to do tardy justice to the discoverer and describer of this new species by assigning to it the name *Schœnicola yessoensis* originally given in Blakiston's MS. In all fairness this species ought to stand as *Emberiza yessoensis* (Blakiston). I have consulted divers ornithological experts, "learned in the law," and I am most reluctantly compelled to indorse their decision that, inasmuch as Swinhoe was the first person who *published* the name *yessoensis,* this bird must stand as *Emberiza yessoensis* (Swinhoe).

Upon the same plate is figured, under the name *Emberiza passerina,* an adult male of the true *Emberiza minor.* I shot the bird from which this figure was drawn in the valley of the Yen-e-say, in East Siberia, in lat. 66½°, on the 9th of June, 1877. In 'The Ibis' for 1878, p. 339, I have given particulars of its capture under the name of *E. polaris,* Midd. Since writing that account I have had leisure to work out the subject further, and now add a full synonymy of the species as far as I have been able to ascertain it.

EMBERIZA PASSERINA. (Plate I. fig. 1.)

Emberiza passerina, Pallas, Itin. i. app. p. 456. no. 10; Zoogr. Rosso-As. ii. p. 49 (1811).

Emberiza schœniclus, var. *β,* Pall. Zoogr. Rosso-As. i. p. 48 (1811).

Cynchramus pallasi, Cab. et Heine, Mus. Hein. i. p. 130 (1850).

Emberiza schœniclus, var. *minor,* Midd. Sib. Reise, ii. p. 144 (1851).

Emberiza polaris, Midd. Sib. Reise, ii. p. 146 (1851).

Emberiza canescens, Swinhoe, Ibis, 1860, p. 62.

Emberiza alleonis, J. Vian, Rev. et Mag. de Zool. 1869, p. 97.

264. Schœnicola pyrrhulina, Swinhoe.

Two skins sent (Nos. 1835 and 2246) are respectively an adult male in breeding-plumage and an example in winter plumage of *Emberiza schœniclus*, Linn., subspecies *palustris*, Savi. This form of the common European black-headed Reed-Bunting is the *Emberiza palustris* of Savi, the *E. intermedia* of Michahelles apud Bonaparte, and the *Schœnicola pyrrhulina* of Swinhoe. It differs from the normal form of *E. schœniclus*, Linn., solely in having a thicker bill. The following table of measurements of the height of the bill will show how impossible it is to draw a line between the two alleged species.

	inch.		inch.
2 skins from Spain	·2	6 skins from Asia Minor	·21
1 „ „ England	·2	1 „ „ Yenesay	·21
1 „ „ Heligoland	·2	1 „ „ Malta	·22
4 „ „ Norway	·2	1 „ „ Spain	·23
2 „ „ Petchora	·2	1 „ „ Japan	·23
1 „ „ Ural	·2	2 „ „ Japan	·24
8 „ „ Asia Minor	·2	1 „ „ Asia Minor	·25
6 „ „ Yenesay	·2	1 „ „ Spain	·2
2 „ „ Spain	·21	1 „ „ Italy	·25
1 „ „ Norway	·21	2 „ „ Italy	·3
1 „ „ Holland	·21	1 „ „ Italy	·31
4 „ „ Petchora	·21	1 „ „ Sicily	·31

In the basin of the Caspian at Astrakan, in Turkestan, &c. a nearly allied form occurs, which probably may claim specific rank, *Emberiza pyrrhuloides*, Pall. This is a larger bird, measuring 3·5 to 3·25 in length of wing, and ·35 to ·3 in height of bill. The upper parts are paler in colour, especially the central rectrices and the edges of the wings and wing-coverts. The rump and upper tail-coverts are also much paler in colour, and without the dark streaks in the centre of each feather.

The peculiarity of the geographical distribution of these birds is that *E. schœniclus* extends eastwards only as far as the valley of the Yenesay, where a smaller and grey-shouldered species appears, *E. passerina*, Pall., and extends eastwards into the valley of the Lena and into China. Still further east, in Japan, *E. schœniclus*, subsp. *palustris*, reappears.

285. Syrnium rufescens, Temm.

The skin sent (No. 2118) from Hakodate is a male of *Syrnium uralense,* subspecies *fuscescens,* the *Strix rufescens* of Temm. & Schlegel's text, but named *Strix fuscescens* on their plate. This skin is interesting, as showing that this subspecies has a grey phase of plumage. Mr. Gurney informs me that the Norwich Museum possesses two skins from Japan in the more rufous phase figured in the 'Fauna Japonica.'

286. Asio accipitrinus (Pall.).

The skin sent (No. 1521) is that of the common Short-eared Owl of North Europe and North Asia, the *Otus brachyotus* of many ornithologists.

287. Asio otus (L.).

The skin sent (No. 2203) is correctly identified.

296. Spizaetus orientalis, T. & S.

The figure of this bird in the 'Fauna Japonica' is considered by both Sharpe and Gurney to represent a not fully adult *Spizaetus nipalensis* (Hodgs.). Mr. Gurney tells me that there is some doubt as to the locality of the skin of this bird in the Norwich Museum, supposed to have come from Japan. It is a matter of importance that skins of fully adult Japanese birds should be sent to this country, so that the identity of the species with the Indian bird may be placed beyond a doubt.

298. Buteo japonicus, T. & S.

299. Buteo, sp. inc.

Sharpe, in his 'Catalogue of Birds,' considers the Japanese Buzzard to be the not quite mature *Buteo plumipes,* Hodgs.; but Mr. Gurney, in his notes in 'The Ibis' (1876, p. 369), hesitates to confirm this identification. Mr. Gurney assures me that the pale form of the immature bird figured in the 'Fauna Japonica' is merely a less rufous phase of plumage, and that the Norwich Museum possesses similar forms from China.

300. Buteo hemilasius, T. & S.

This is a good species, and quite distinct from *Archibuteo aquilinus* of Hodgson. The type of Hodgson's species is in the British Museum, and has been described and figured in Sharpe's 'Catalogue of Birds' (i. p. 178, pl. 8) as a very old example of *Buteo ferox*.

301. Poliornis poliogenys, T. & S.

The skin sent (No. 2213) is a specimen of *Butastur indicus* (Gmel. ex Lath.), of which *Buteo pyrrhogenys*, T. & S., is a synonym, as is also *Falco poliogenys*, Temm.

302. Pernis apivorus (L.).

This bird was incorrectly identified by Temminck and Schlegel with the European Honey-Buzzard. The Japanese bird should stand as *Pernis ptilorhynchus* (Temm.).

303. Astur palumbarius (L.).

The skin sent (No. 1882) is a female of this species, no doubt a bird of the year.

304. Accipiter nisus (L.).

Authentic specimens of this bird from Japan are in the collections of Lord Tweeddale and of Messrs. Salvin & Godman (see Dresser's 'Birds of Europe,' pt. ix.).

305. Accipiter gularis, T. & S.

The skin sent (No. 2070) is a young male. Sharpe, in his 'Cat. B. Brit. Mus.' i. p. 150, makes the Japanese bird a large form of *A. virgatus*, Temm.; and Gurney (Ibis, 1875, p. 480), whilst pointing out the difference between the two forms, hesitates to pronounce them specifically distinct. The Japanese seems to be a fairly good subspecies.

306. Tinnunculus japonicus, T. & S.

The skin sent (No. 2210) is darker in colour than the European form of the Kestrel. Temminck and Schlegel only admit the Japanese bird to subspecific rank; and in this opinion both Sharpe and Dresser concur. It must therefore stand as *Cerchneis tinnunculus*, subspecies *japonicus*.

307. Hypotriorchis subbuteo, L.

The skin sent (No. 1520) is a male of our Hobby in fully adult plumage, the streaks on the thighs characteristic of immaturity having disappeared.

308. Hypotriorchis æsalon, L.

There are skins of both adult and young of *Falco æsalon*, Linn., in the British Museum collected by Mr. Pryer in Japan.

309. Hypotriorchis amurensis.

There is no reason to doubt the correctness of this identification. The name should stand *Cerchneis amurensis* (Radde).

310. Falco peregrinus, Tunst.

There are skins of *Falco peregrinus*, from Hakodate, both in the Norwich and the British Museums.

III.—*Field-notes on the Birds of Celebes.* By A. B. Meyer, M.D., C.M.Z.S., Director of the Royal Zoological Museum, Dresden. Part I. Psittaci, Rapaces, *and* Picariæ.

The following notes were written nearly as they are during my stay on the island of Celebes from December 1870 till November 1871 (and again for a short time in 1873). I then visited the northern peninsula (the so-called Minahassa), a part of the countries round the Gulf of Tomini, including the Togian Islands within this gulf, the Sangi Islands to the north of the Minahassa, and the south-western peninsula, the chief place of which is the well-known town of Makassar. The birds collected by myself were obtained in the months from December to June in the Minahassa, from July to September in the countries round the Gulf of Tomini, and in October, November, and January in the south. It is known that the Marquis of Tweeddale (then Viscount Walden) had my collections at his disposal when he published his list of the birds of Celebes (Trans. Z. S. viii. p. 23); and I shall treat the species on which I have any thing to say in the order in which they are enumerated in that memoir, and with the same nomenclature. I regret that the exact localities where I got my specimens were often destroyed, and the exact dates when

I got them nearly always so. This was partly my own fault, as I had not labelled every specimen in such a way that the labels could not be torn off—partly the fault of my agent, who did not follow my instructions and keep the lots together and distinct from each other, as I had sent them. For this reason I am unable to give detailed local lists as they ought to be given, and as I hope they will be given one day. It is only from the Togian Islands, where I collected in the month of August, that I am able to give a trustworthy local list; and I shall do so at the end of this paper. A list of the birds inhabiting the Sangi Islands I hope to be able to publish soon elsewhere.

It is not my intention to write now an essay on the birds of the Celebes; but I simply wish to publish my field-notes from my diary, being afraid that, if I keep them still longer in my desk, my readers, in remembrance of Horace's "nonum prematur in annum," might expect to find something classical, and be totally disappointed. I shall perhaps, on some future occasion, treat fully on the birds of Celebes, which still admit of a monograph, even after Lord Tweeddale's meritorious work. I therefore beg that the following remarks may be regarded only as unpretending notes.

I should mention that, if a Celebean bird is *not* noticed in the following remarks, this does not mean that I did not procure it, but only that I did not make a note of it in my diary.

CACATUA SULPHUREA (Gm.).

Malay name, "Gatalla" and "Cacatua puti" ("puti" means "white"); pincers the Malays call "cacatua," from the bill of this parrot, certainly a good name.

About this bird a few words may be said, some not quite exact dates being found here and there, perhaps in consequence of its singular geographical range. Wallace himself appears not to have met with the species in a wild state on Celebes; and Von Martens says that in South Celebes nothing is known of its existence. In the Minahassa it is unknown, so far as I am aware. I did not even see a specimen in captivity; and nobody could give me any information about it.

In a wild state it is also unknown in the neighbourhood of Gorontalo; but a cage-specimen sometimes occurs there. But when I crossed the island from Gorontalo to Kwandang and Sumalatte, on the north coast, I was informed that it makes its appearance there from time to time, and in Kwandang I saw the first specimen in captivity, a rare occurrence even there: I had to pay a whole piece of shirting for this bird. From the small islands in the neighbourhood of Kwandang I got wild specimens. Trustworthy natives told me that the species is more plentiful to the east of Kwandang near the sea-shore. Then it occurs again on the shores of the Gulf of Tomini (the south shore of the northern peninsula), viz. near Paguatt and Tilamutan, whence I procured a series of specimens. I suppose that it goes round the whole coast of the gulf as far as Posso in the south—where the centre of Celebes may be said to begin (in contradistinction to the four circumferential arms), and where I again shot the bird. On the Togian Islands I did not meet it, nor at Todjo, more to the east, on the southern shore of the gulf; and the natives appeared not to know the bird. At all events, this interrupted geographical distribution is noteworthy. It might be supposed that the season has an influence on its distribution; but this is at least not always the case, as it does not occur in the Minahassa and near Gorontalo. On the west coast of Celebes, more to the south, it again makes its appearance at Mandar, according to the information which I received. I myself again shot some specimens on the west coast still more to the south, near Mandalli, where the mountain-chain touches the sea-shore; but at Maros and Makassar the bird is unknown. The natives assert that it does not occur in the interior of Celebes; but of course this is not trustworthy.

Cacatua sulphurea must be declared a rare bird, in this sense, that its distribution is a very interrupted one in Celebes. On the island of Buton it appears to be plentiful in a wild state; and in captivity many specimens are brought from Binonko, on the island, to Amboyna. I once got at Makassar four specimens together from a direct Buton prauw. Dr. Beccari brought the species from Kandari.

As to the colour of the iris, I can state that the specimens which I got from the islands near Kwandang had beautiful red eyes, but the specimens from the shores of the Gulf of Tomini brown, even blackish ones. I therefore at first supposed that it had differently coloured eyes according to the habitat; but of the four living Buton specimens mentioned above, three possessed a black iris, and one a brownish one; further, a living bird, which I got in September 1871 from Tilamutan (see above), showed a dark-coloured iris, which by and by became reddish (it accompanied me to Europe in the year 1872), whereas another living specimen, which I took with me to Europe from Kwandang, kept its beautiful red eyes. I therefore believe that the young bird has dark eyes, and the old one red ones; and such a change of colour has its parallels.

Also the yellow of the plumage is much more intense in aged specimens than in young ones; not only are the cheeks yellowish, but a lovely velvet-like yellow tint is spread over the whole bird, giving a special charm to it.

At Posso I first saw *Cacatua sulphurea* in large flocks on trees near the sea-shore at sunset. It was a splendid tropical evening; and they enjoyed themselves very much by making a horrible noise not often heard on Celebes, and therefore not easily to be forgotten. I could not reach the birds with my gun, they kept too high; but the following morning I knocked some down, which at first appeared to me to be larger than those from Kwandang; afterwards I could not find any difference in size. The village of Posso is a fort, the natives being almost constantly at war with their neighbours, and even when I was among them; they are head-hunters, like the Dayaks of Borneo, and keep the skulls of their enemies in a hut in the middle of the village. There is a group of large trees between the houses; and at noon I saw some white *Cacatuæ* sleeping in the foliage, a striking contrast of peace in nature to war among mankind. I left those pretty birds undisturbed in their high resting-places. Also in South Celebes I saw *Cacatua sulphurea* only on high trees. They feed on forest-fruits and, where they find them, on fruits from the native plantations, such as cocoanuts, bananas, Indian corn. Their cry in the forest is loud and shrill.

I procured a series of specimens at Tilamutan (Paguatt), Posso, and Kwandang in August, in South Celebes in September; and I believe that specimens with exact habitat and taken wild are still rare in collections.

Tanygnathus muelleri (Müller & Schl.).

Native (Malay) name, "Cacatua idiu," green Cockatoo. Iris white.

Guided by Dr. Finsch's excellent monograph, during my stay on Celebes I was aware of the controversy whether the white- and red-billed Parrots be one and the same species or different ones, and tried to solve the question on the spot. I procured a very large series of specimens, and among them every stage between the white- and red-billed, with no other differences than that of age. I do not the least doubt that the bill of the young bird is white, and that it gradually passes into red, aged individuals always possessing a bill of a deep red colour, together with a deeper tint of blue on the uropygium, and some blue on the upper wing-coverts, as proved by my cabinet-specimens. Mr. Wallace says (P. Z. S. 1862, p. 836) that the cry of *T. albirostris* is different from that of *T. muelleri*, and that the former is universally recognized by the natives of Celebes as another bird. It may be that the young bird has a cry somewhat different from that of the old one; but this difference cannot be great, at least it cannot be compared with the difference of the cry between two really distinct species, as, for instance, *T. muelleri* and *T. megalorhynchus*, whose cries can immediately be distinguished one from the other, as I shall shortly relate. Neither can I agree that the natives recognize them as two birds. Even if they did, I should not attribute much value to such a statement, as generally the natives of Celebes know but little of their fauna, and answer a question as they think will most please the questioner. Nevertheless, were *T. muelleri* a species often kept in captivity by the natives, as is *Trichoglossus ornatus*, I could perhaps trust them; but this is not the case, *T. muelleri* rarely being seen in captivity, on account of its unamiable character, at least in this state.

Dr. Sclater (P. Z. S. 1871, p. 494) remarks, under *T. albirostris*, Wallace, "I must say that, so far as I can tell from an examination of the living birds, I am inclined to agree with Mr. Wallace in considering this bird specifically distinct from *T. muelleri*, of which we have had several living examples. It is at once recognizable by its white bill." And Mr. Wallace subsequently continued to maintain (*apud* Walden, p. 31) that "*T. albirostris* is certainly distinct." Lord Tweeddale did not venture to decide the question; but I do not hesitate to do so, in consequence of the information which I got in Celebes itself, and which my cabinet specimens offer. I believe it will be better to use the name *muelleri* for this bird than the geographical *sumatranus*, this latter being misleading.

I shot *T. muelleri* in the Minahassa from January to July, in the district of Gorontalo from July to September, on the Togian Islands, near Posso and Todjo, in August, and in South Celebes, from Maros to Tanette, from September to November.

In January a living specimen was in my possession at Menado. It fed on rice and bananas, and was generally unintelligent, idle, quiet, or grumbling. The species has not yet been figured.

Lord Tweeddale gives as a habitat "Sama Island (*Cuming*)." I suppose that the island "Samar," one of the Philippines, is meant; but on the Philippines lives *T. luzoniensis*, which species I procured on Luzon, Guimaras, and Negros, and which certainly occurs also on Samar.

Tanygnathus megalorhynchus (Bodd.).

Native name on Ternate, "Kaleha."

This Parrot is allied to *T. muelleri*, but easily to be distinguished by its larger size and more brilliant colours. This species is not yet recorded from Celebes itself; but I got it on a small island just in the neighbourhood of Menado, to the north-west, called Montahage (or Mantrau), about six miles from the mainland, and I am therefore of opinion that it cannot be excluded from the Celebean avifauna. Making an excursion to that coral island, which has some resemblance to an atoll, and hunting in the mangrove jungle, I constantly heard a bird's cry unknown to me. My Ternate companion declared this to be the Kaleha's cry; and at last I saw some Parrots on a high tree. I succeeded in bringing one down; but it could not be secured, owing to the swamp into which it had fallen. Several birds flew away; two, perhaps wounded, remained in the neighbourhood, the one crying constantly at least half an hour, the other only from time to time. This last I finally succeeded in killing; and it proved to be a female. The specimen is like those from Sangi.

I searched after the species on Celebes itself, opposite the island Mantrau, near Kima (a small village inhabited by the so-called Orang-Badju—not to be confounded with Kema on the east coast), near Likupang on the north coast, and on the island Bangka, opposite this place, but in vain. On the small islands Nain-kitgil and Nain-bezar they are said to be common. It is obvious that the bird has not yet been shot, as far as I am aware, on the mainland of Celebes. *T. megalorhynchus* loves solitude and avoids human settlements; so my Ternate companion informed me. In the morning and evening it is not easily found, as it retires into the deep forest; in the middle of the day it sleeps or sits quietly, concealed among the green foliage of high trees, and cries very loudly if any one approaches. Now I suppose that *T. megalorhynchus* is just about to extend its geographical range. Coming from the Sangi Islands, which are nearly united to Celebes by a series of small islets, it meets human settlements on the sea-shore almost everywhere, an impediment arresting its progress; but I do not doubt that it will at last also settle on Celebes itself. (See my remarks in Rowley's 'Ornithological Miscellany,' 1878, iii. p. 127.)

PRIONITURUS PLATURUS (Kuhl).

Malay name, "Cacatua birotti." "Birotti" is an arrow used in blowpipes, with small feathers behind. Alfurese name in the Minahassa, "Kulli-kulli."

In life, colour of the eyes dark brown, feet greyish blue, claws grey, bill bluish grey or whitish. (One of my hunters asserted that he had once shot a specimen with a red bill; if this is true, there exists perhaps another species.)

In March 1871 this species was numerous in the neighbourhood of Menado, and was met with during the whole of my stay in the Minahassa. Moreover I got this species near Limbotto in July, and on the Togian Islands in August. It only occurs on low lands. Even the young bird can be distinguished from the young of the allied *Prioniturus flavicans* by the greyish tints on the wing-coverts.

This bird flies much during the night, and can often be heard crying on the wing over one's head. It feeds in the night on the fruits of gardens and fields, and is fond of Indian corn, rice, and fruits like lansa, pakowa, &c. During the daytime it is seldom to be met in the plantations, but is to be seen flying very high and crying loud, seldom alone. It makes its nest in hollow trees. On trees it does not move much, but sits quietly. If one is shot down from a group, the others do not stir, but lie, concealed by their green plumage, between the leaves, just as I have noticed in the case of other Parrots (see my remarks on *Nasiterna pygmæa* in Gould's 'Birds of New Guinea,' pt. vi. 1878).

The natives of the Minahassa assert that if the "Kulli-kulli" is taken by surprise in the rice-fields, it becomes confused or terrified, falls down, and then can easily be caught. This does not appear very credible; nevertheless it agrees with the observation that one can be brought down by a shot out of a group without the others moving; perhaps these are struck by terror, and do not know what to do. This fact has given rise to the following tale in the Minahassa. Children are asked, "If ten birds sit on a tree, and one is shot down, how many remain on the tree?" The children answer, "nine;" but the master says, "wrong," because they all fly away—except when the birds are Kulli-kulli; in this case the children are right.

The cry of *P. platurus* is like *käk, käk.*

At Menado I once had a specimen in captivity, but it appeared to be very unhappy in its cage.

As to the two lengthened tail-feathers of this bird a few words may be said. Often one of these racket-shaped feathers is wanting in the specimens shot; and the natives say that, if the bird has one, it has flown round the country once, if it has two, twice.

I do not share the view of Dr. Finsch that the denuded rhachis is produced by rubbing off the webs, because I obtained a series of specimens which present a racket-shaped tail-feather with naked rhachis still lying on the surface of other tail-feathers, and therefore not extended beyond them. The feather grows naked in the second or third moult. Besides, those shafts which are not quite denuded show remains of an outer web, but not (or at least rarely) of an inner one, and it is more probable that, if the webs were rubbed off, this would be the case with the outer ones, not to mention that on trees the mode of life of this bird is, as stated above, a very quiet one.

PRIONITURUS FLAVICANS, Cassin.

The natives do not distinguish this species from *P. platurus* by a special name; generally they are not strict observers of nature, at least not strict in our scientific sense. The young ones are quite green; old males have a blue cap, with a red patch in the middle; old females have no red patch.

P. flavicans is rarer than *P. platurus*, and only occurs in the mountains. I got it at Kakas in June, and in the mountains near Limbotto in August.

As regards the tail-feathers, the same remarks apply to this species as to *P. platurus*.

LORICULUS STIGMATUS (Müll. & Schl.).

Native name at Menado, "Tintis."

Everywhere and at all times in the Minahassa from December till July, but especially numerous in the beginning of March near Menado. At Posso, on the south shore of the Bay of Tomini and at Limbotto (district of Gorontalo) in August. March 26, 1871, I got in Menado a young female, about a fortnight old. It was quite green, only with light-yellow shoulder-edges, underparts lighter green; nape light-orange-tinged; the red of the upper tail-coverts already perfect; bill yellow; feet yellowish brown; underparts of the wings bright blue. It chiefly fed on bananas in captivity, and became very tame. (Compare, as to its habits in captivity, my notes in G. D. Rowley's 'Ornithological Miscellany,' ii. p. 252 *et seq.*, 1877.)

LORICULUS SCLATERI, Wallace.

Does not occur on Celebes, so far as I am aware; and I do not believe that Von Rosenberg's report can be trusted in this case; at least this must remain doubtful till another collector again brings the bird from there. (Compare my notes *l. c.*)

LORICULUS QUADRICOLOR, Walden, Ann. N. H. ser. 4, ix. p. 398.

I discovered this species in the neighbourhood of the village of Togian, on the chief island of the Togian group in the Gulf of Tomini, in August 1871. I only procured six specimens.

In life the eyes are yellowish white, feet yellowish red, bill and claws black, cere and skin round the eyes reddish yellow.

(Compare my notes *l. c.* p. 252 *et seq.*)

LORICULUS EXILIS, Schlegel.

Native name, "Tintis-kitjil." "Tintis" is the name for *Loriculus stigmatus*; and "kitjil" = little in Malay.

In life, eyes yellow, feet orange-yellow somewhat reddish, bill coral red.

This species is said to feed only on flower-juices; and I never found anything solid in the stomach. It lives in flocks. I got the first pair near Menado at the end of March in 1871; then, at the end of April and in May, any number could be procured by the natives, who shoot them with blowpipes, long bamboos through which they blow small arrows made out of pointed bamboo. It frequents the mangrove-thickets near the sea-shore (chiefly *Sonneratia acida*, L.); and I believe that its sudden appearance in flocks, as well as that of other Parrots at certain times (*L. stigmatus*, *Trichoglossus ornatus*, and *T. meyeri*), depends on the flowering-time of certain trees or the ripening of their fruits.

At one time I had six living examples with me; but they died very soon. (Compare also, as to its size, my remarks in Rowley's 'Ornithological Miscellany,' ii. p. 245, 1877.)

TRICHOGLOSSUS ORNATUS (L.).

Native name among the Alfuros in the Minahassa, "Kerut;" besides, every one calls it "Parkitji," which is, I believe, a Dutch word.

The most common Parrot of Celebes; I got it at all times and everywhere in the Minahassa from January till July; at the end of March 1871 it suddenly appeared in large flocks near Limbotto in August; near Gorontalo in September; on the Togian Islands in August, and in South Celebes in October and November. Rosenberg reports the species also from the Sula Islands; but I presume that this is an error.

They live in flocks. They fly very quickly, with much noise and quick strokes of the wings; they have a short and shrill cry, and do not sit quiet a long time on one spot, but climb all over the tree. At midday, in the heat, they sit in flocks in the shadow of the leaves, chattering and scratching each other's heads. In cool weather they are on the wing nearly the whole day.

On the 27th of February I found a female, with an egg ready to be laid; it was quite white, 25 millims. long, 17 millims. broad.

Trichoglossus ornatus smells, as all the allied parrots do, very agreeably of hyacinths. They feed, according to the season, on all possible fruits; in captivity they prefer bananas above every thing, but also like rice; they are very wild and not easy to tame quickly; but in time they get accustomed to one person. This beautiful bird is often to be seen tame on small stands before the huts; but the natives also use them as food.

Once I shot a specimen near Menado with quite yellow plumage, perhaps a bird escaped from captivity, or an individual variety. My hunters declared it to be from the Sangi Islands; but I do not believe that the species occurs there at all.

TRICHOGLOSSUS MEYERI, Walden.

Native name at Menado, "Parkitji lolaro." "Lolaro" means the mangrove jungles near the sea-shore, especially those of *Rhizophora conjugata*, L.

I discovered this new species in April 1871, and sent it as such to Lord Tweeddale, who bestowed my name upon it: the plate (Trans. Zool. Soc. viii. pl. iv.) is a little too brilliant in its colours. The bird appeared near Menado in flocks, and could always be procured till the middle of May, and then became rarer. The sudden appearance of some species of Parrots must be in connexion with the flowering of certain trees, and with the changes of the season. *Loriculus stigmatus* appeared in flocks near Menado at the beginning of March in 1871, *Trichoglossus ornatus* at the end of March, *Trichoglossus meyeri* at the beginning of April, and *Loriculus exilis* at the end of April. We are still far from a perfect knowledge of the movements of the birds in these regions, and shall not know much about it till we have a series of observations from different localities. It appears to me probable that the rainy season in the mountains of the Minahassa drives the birds to places where it is warmer and not so damp; at least this was the condition in 1871 near Menado, where the rainy season was very mild.

Besides, the distribution of animals is always changing, slowly, but constantly; and as to birds in those regions, no doubt the monsoons have a great influence. The monsoon drives the birds in one direction; they cannot go against it. Therefore, if one wishes to study in greater detail the distribution of birds—say, for instance, those of the Philippines, Celebes, Borneo, and the islands between these countries, the local lines of the monsoons must be taken into consideration in comparing the allied and representative species from the different islands, in order to get a clue to the starting-point of the race or of the whole group.

In the case of the Parrots we, no doubt, sometimes also have to take into account the influence of artificial distribution by mankind for centuries and more.

DOMICELLA COCCINEA (Latham).

This bird has been recorded several times from Celebes, but in my opinion not rightly. It is a native of the islands Siao and Great Sangi, and is only introduced by man into the Minahassa; at least this fact gives a quite sufficient explanation of its occasional occurrence in the forests near Menado. In no case is the species a native of Celebes; and it only remains a question whether it is perhaps extending its geographical range in consequence of natural causes. Allied forms are only to be found to the east and south-east; of this stock *D. coccinea* is an outlying form. (See my notes in Rowley's 'Ornithological Miscellany,' iii. p. 126 *et seq.* 1878.)

TINNUNCULUS MOLUCCENSIS, Jacq. & Puch.

I got this species in March near Menado, and in January near Makassar. Iris brown; bill greyish blue; cere and skin round the eyes yellow; feet deep citron-yellow, claws black. Feeds on little birds.

LOPHOSPIZA GRISEICEPS (Schlegel).

Near Menado, in March.

TERASPIZA RHODOGASTRA (Schlegel).

Near Menado, in five different dresses.

ERYTHROSPIZA TRINOTATA (Bp.).

Native Malay name, "Sikip batta batta," *i. e.* "spotted bird of prey." Iris black.

From December to March near Menado. I never got a specimen there in the dress which Schlegel figures in his Valkv. Ned. Ind. pl. 19, fig. 3; and the natives assured me that such a bird was not to be met with. But I got it in June at Kakas, about 2000 feet high in the mountains, and therefore believe that they only breed in the mountains, and that the young ones do not pass into the plains in the first year, supposing that there can be no doubt as to the specific unity of these different dresses.

TACHYSPIZA SOLOENSIS (Horsf.).

Near Menado, in March.

LIMNAETUS LANCEOLATUS, Bp.

Near Menado, in March.

CUNCUMA LEUCOGASTER (Gm.).

Near Menado, in March.

PANDION LEUCOCEPHALUS, Gould.

Native Malay name, "Koheba gunong," *i. e.* "Bird of prey from the mountains."

Near Menado, in March. Wings 450–470 millims., tail 190–240.

SPILORNIS RUFIPECTUS, Gould.

Near Menado, in March.

HALIASTUR LEUCOSTERNUS, Gould.

Native Malay name, "Koheba dada puti," *i. e.* "Bird of prey with white breast."

A very common bird at every season near Menado, in the mountains near the lakes of Tondano, in Limbotto, on the Togian Islands &c., and in South Celebes.

In some specimens the dark colour of the shaft of the feathers on the head and back is scarcely to be seen. Wings 390–430 millims., tail 195–215.

ELANUS HYPOLEUCUS, Gould.

Tello, near Makassar, January.

Feet citron-yellow; claws black; cere yellow; under the eyes yellowish; iris fiery red. Feeds on lizards &c.

PERNIS CELEBENSIS, Walden.

Iris dark brown.

February, near Menado.

BAZA MAGNIROSTRIS, Gray.

Near Menado.

POLIORNIS LIVENTER (Temm.).

Near Menado.

Athene punctulata (Q. & G.).

Near Gorontalo.

Ephialtes menadensis (Q. & G.).

Near Menado and Gorontalo.

Ninox japonicus (Bp.).

Near Menado.

Strix rosenbergi, Schlegel.

Near Menado.

Mulleripicus fulvus (Q. & G.).

Malay name, "Burong tukan," *i. e.* "Carpenter's bird." Alfurous name near Menado, "Rumerkukor." Alfurous name near Tanawangko, "Tatankul."

At all seasons in the Minahassa, Limbotto, and Togian Islands, common.

Iris white.

The bird lays two, seldom three, eggs in a hole of a dead tree. Feeds on tree-insects, on white ants, caterpillars, &c., as all Woodpeckers. Lives in pairs. If the male and female lose each other, the male knocks, and the female follows the sound.

Yungipicus temmincki (Malh.).

Near Menado, March; not rare.

Merops philippinus, L.

Malay native name, "Burong langir," *i. e.* "a bird which flies up very high."

In the Minahassa this bird is only plentiful at certain times, viz. in the dry season during the east monsoon; in the west monsoon it is rarely to be met with. In Limbotto I got it in July, in Makassar in October, 1871, later in Singapore, in December 1871, on Luzon in February 1872, on Negros (Philippine Islands) in March 1872.

Merops ornatus, Lath.

In the Minahassa only numerous in the east monsoon. Near Menado in May, on the Togian Islands in August.

As to the development of the lengthened tail-feathers, an examination of a series of specimens proves that, as in the analogous case of *Prioniturus* (see above, p. 51), the lengthened tail-feathers are narrower *ab initio*, and are not formed by being rubbed off, except at the last stage, which, however, does not touch the principle that also here immanent causes affect the shape of these feathers. The same remarks apply to *M. philippinus*.

MEROPOGON FORSTENI (Temm.).

There existed before my journey to Celebes only one male specimen of this interesting species in the Leyden Museum, obtained by Forsten, in the year 1841, near Tondano, at an elevation of 2000 feet in the Minahassa. Professor Schlegel showed me the specimen before I went away in 1870, and urged me to rediscover it, as none of Forsten's successors, Wallace, Rosenberg and others, had brought it home. Mr. Wallace, in his charming book, 'The Malay Archipelago' (i. p. 429), says, in the chapter on the "Natural History of Celebes," "In the next family, the Bee-eaters, is another equally isolated bird, *Meropogon forsteni*, which combines the characters of African and Indian Bee-eaters, and whose only near ally, *Meropogon breweri*, was discovered by M. Du Chaillu in West Africa!" African afinities being said to give a characteristic feature to the Celebean fauna, and, besides, *M. forsteni* being so rare that the Celebean origin of the bird was doubted, I resolved to do my best in searching after it. I therefore made about a hundred coloured sketches, and distributed them among the natives, to send away into the mountainous districts, and put a relatively high reward on a skin. I got the first specimen at the end of the month of May 1871 from a forest near Rurukan, not very far from the place where Forsten had procured his specimen some thirty years before; and afterwards, in June, I found the bird in the richest virgin forest which I have seen in these regions, on the way from Langowan (about 2000 feet) to Pangku, where it appeared to be not so rare. I suppose that *M. forsteni* only inhabits the mountainous districts, like *Enodes erythrophrys*, *Hemiphaga forsteni*, &c.; but, of course, I am not sure of this. I should not say these birds are rare, but only known to occur in restricted localities; if only these localities are discovered, the bird proves then to be numerous. It is the same with certain butterflies which have been declared to be rare ones, such as *Papilio blumei P. androcles*, &c.; they also do not, or at least rarely, occur near Menado, where most travellers have collected, and therefore have the reputation of being rare; but I found places in Celebes where any quantity of them can be procured, They are not collected in greater quantities because nearly every one who travels there does not remain a long time on those spots. It will be the same with other animals. Of course there are also animals which really are only represented by very few individuals; but these are perhaps either aberrant species, or such as are on the way to becoming extinct.

The female of *Meropogon forsteni* has not such brilliant colours as the male, and the lengthened feathers of the throat are not as handsome. But I cannot agree with Mr. Wallace's opinion, above cited, as to its nearest ally being in Africa. The species of *Nyctiornis* of the Malay archipelago are its most natural and nearest allies; and *Meropogon forsteni* gives to Celebes no other characteristic feature than *Nyctiornis amictus* gives to Borneo and Sumatra. All these are alike related to the West-African Bee-eaters, belonging to one and the same family, which occupies nearly the whole Ethiopian, Oriental, and Australian region.

There is some error in Lord Tweeddale's (*l. c.* p. 42) giving the habitat "Rurukan" on my authority in a paper read May 2nd, 1871, in London; whereas I only obtained my first specimen in North Celebes itself at the end of the same month. The like remark applies to *Trichoglossus meyeri, Loriculus exilis* (*l. c.* p. 32), &c.

CORACIAS TEMMINCKI (Vieillot).

Native Malay name, "Kapala-biru," *i. e.* "Bluehead." Alfurous name of the Minahassa, "Pateh-rokos."

Near Menado, January till June 1871; Limbotto, July 1871.

The male has the blue colour more brilliant. It usually flies singly; but after feeding, several play together. They frequently sit on dead twigs and look out for grasshoppers and other insects; then suddenly rushing upon their prey, they return to their perch.

Cry *tschirrrr.*

EURYSTOMUS ORIENTALIS (L.).

Malay native name, "Tjetje."

A common bird near Menado from December till May 1871; Limbotto, July.

Iris greyish brown. Cry *kiak, kiak.*

This bird sleeps in the morning, and searches for food at midday; in the evening it flies after beetles. It is to be seen near river-banks, where it sits a long time quietly on a branch of a tree over the water, and can easily be shot, not being a shy bird. In the stomach I often found many beetles with very hard elytra. The bird is mostly fat and well fed; and the muscles can easily be detached from the skin.

(See also my notes in Mitth. a. d. zoolog. Mus. zu Dresden, i. p. 19, 1875).

MONACHALCYON PRINCEPS (Forster).

Native Malay name, "Radja-udan-kapala-biru," *i. e.* "King of the crabs, with blue head." (It will be observed that Malays as well as Englishmen give the epithet "King" to this bird.) Alfurous name in the Minahassa, "Kikis-tambo," *i. e.* "Kingfisher which lives near small pools."

This bird does not live near river-banks, and is therefore, like all Kingfishers which do not live thus, more difficult to procure in the forest, and more rarely to be seen.

On March 17th I found, in a nest of white ants of the size of a large gourd, three eggs of *M. princeps.* Half of the ants' nest was destroyed by the bird, which had made a large hole for the eggs, six inches in diameter, with an entrance two inches in diameter and nine inches long, therefore too narrow and long to allow me to reach the eggs with my hand. The ants' nest was still partly inhabited by ants. The eggs were quite white and transparent (perhaps quite fresh), the contents beautiful orange-red; size 30 millims. long, 25 broad. In the same month I found another pair of eggs of this bird; but they were lying on the ground and dirty.

MONACHALCYON CYANOCEPHALUS (Forst.).

This bird has long been regarded as the young of the preceeding species. When I first got specimens of this smaller blue-headed and striped Kingfisher in the mountains of the Minahassa, near Kokat (2000 feet high), in June 1871, I immediately pointed out in a letter to Lord Tweeddale that I did not believe it to be the young of *M. princeps*; but Lord Tweeddale did not adopt my view, and followed Professor Schlegel, Mr. Sharpe, and others. I cannot agree on this point with the opinion generally adopted, and must look at *M. cyanocephalus* as a distinct species. Recently Count Salvadori also appears to incline to this opinion; and Dr. Brüggemann* decidedly does so. I never got the species near Menado, but later on procured it also from the Gorontalo district.

ENTOMOBIA PILEATA (Bodd.).

H. van Musschenbroek informs me that one of his sons obtained this species in the neighbourhood of Menado: the skin is in the Leyden Museum.

SAUROPATIS CHLORIS (Bodd.).

Native Malay name, "Radja-udan-biru," *i. e.* "Blue King of the Crabs." Alfurous name in the Minahassa, "Kikiskatanaän."

A very common and noisy bird, found everywhere on the sea-shore and on river-banks in North, Middle, and South Celebes. Male more brilliantly coloured than female; the latter more greenish and darker on the head. I often found crustacea in the stomach.

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* In many respects I do not agree with Dr. Brüggemann's views, promulgated in his paper on the birds of Celebes. This author appears to me often to judge rather rashly of the opinions of experienced ornithologists, and to indulge in too decided opinions. I also regret that he has worked with a collection of which the Celebean origin of many specimens is very doubtful, and that thus the ornis of Celebes has been again hampered with a series of species which decidedly do not belong to it, and this after similar contaminations had been swept away by Lord Tweeddale's valuable paper. But I shall have occasion to recur in detail to all this when I hereafter treat on the Celebean fauna in a monograph which I propose to draw up.

Iris brownish; bill black, below reddish white; feet and claws blackish.

One of my specimens exceeds all the others in the brilliancy of its blue colours.

SAUROPATIS SANCTA (Vig. & Horsf.).

Much rarer than *S. chloris,* I believe, even to be called a rare bird in Celebes. I got specimens at Kalinaong, North-eastern Minahassa, in April, and on the Togian Islands in August.

SAUROPATIS FORSTENI, Temm.

Knowing that this species, which is at all events very nearly allied to *S. chloris* (if it is a species at all), was only based on a single specimen, I tried to procure as many specimens as possible of *S. chloris,* to have the chance of getting one of *S. forsteni* among them. But though I saw hundreds of the former, not one of the latter came into my hands, nor even a specimen of *S. chloris* which showed a tendency to vary in the direction of *S. forsteni.* Young individuals of *S. chloris* have much black on the breast; but this is of quite another character from what is represented in the plates published of *S. forsteni.* Nevertheless I should hesitate to look upon this species as an accidental variety, remembering my experience with *Meropogon forsteni,* refound thirty years after its first discovery.

CALLIALCYON RUFA (Wallace).

Native Malay name, "Radja-udan-mera," *i. e.* "Red King of the Crabs."

Generally found in bamboo brushes near rivers, generally several together. It is not a rare bird, but is not to be procured without great patience.

Male and female nearly undistinguishable. Iris dark brown; bill, feet, and claws red.

In the stomach I found fishes, ants, &c.

Menado, January till May; Gorontalo, July; Togian Islands, August.

CITTURA CYANOTIS (Temm.).

Alfurous name in the Minahassa, "Kikis-talun," *i.e.* "Kingfisher of the Forest."

I got this species only in the Minahassa, but at any time from December till July. It lives, like *Monachalcyon princeps,* only in the forest, not on river-sides; and it is not at all a rare bird, according to my experience. It likes to sit dreaming alone on branches of trees. Male and female are easily to be distinguished, viz. from the colour of the wing-coverts and the sides of the head, which is blue in the male, black or bluish black in the female; the male has no white superciliary spots. Even the young ones, which were alive in my possession, show this difference.

In the stomach I found insects, crabs, worms, &c.

Iris rosy red; bill and feet dark red; claws blackish brown. Its cry is, five or six times one after another, *kebekek.*

C. sanghirensis, Sharpe, is quite another and different species, restricted to the Sangi Islands. Dr. Lenz has recently (J. f. Orn. 1877, p. 368) again confounded the two species, and reported also Celebes as the habitat of *C. sanghirensis,* misled by a collection of doubtful origin.

(Compare my notes in Rowley's 'Ornithological Miscellany,' iii. p. 136 *et seq.*, 1878, which treat fully of the sexual differences of both species.)

CEYCOPSIS FALLAX (Schlegel).

I got this species near Menado, near Gorontalo, and at the waterfall of Maros, in South Celebes; but I did not procure many specimens, perhaps for the reason that it lives in the forest and is a small species. Near Tabukan, on Great Sangi Islands, it appears to be plentiful. In May a living specimen was in my possession at Menado. The colours of this little species are very delicate. It is the loveliest Kingfisher of Celebes.

Iris dark brownish; bill brilliant red, only the middle of the upper mandible blackish; feet and claws brilliant red.

This and other species teach us that we are far from knowing already all the Celebean birds, because this and others have been only discovered recently, and many large collections have been sent to Europe before this discovery. I do not doubt in the least that with perseverance, even in localities which are often visited, species unknown or new to Celebes will be found—not to speak of those regions where no European has set his foot, such, for instance, as the central part of the island.

PELARGOPSIS MELANORHYNCHA (Temm.).

Native Malay name, "Radja-udan-puti," *i. e.* "White King of the Crabs."

On river-sides rather rare; always in pairs together. On the 26th of February I shot on the river Tamumpan, near Menado, a female; and the male flew for hours up and down the river, crying for its mate; every half hour it passed my resting-place. It has a very quick arrow-like flight, feeds on large and small fishes, and always lays two eggs. I further got specimens at the river near Kima, in North-west Minahassa, in April, and on the Togian Islands in August.

Iris yellowish brown; feet red-brown; claws and bill black.

ALCEDO MOLUCCENSIS, Blyth.

Alfurous name in the Minahassa, "Kikis-wowolean," *i. e.* "Kingfisher which lives on the river-side."

A common bird at all times and everywhere on Celebes near the sea-shore and rivers.

ALCEDO BENGALENSIS, Gm.

I got a specimen of a Kingfisher near Menado which cannot be otherwise determined than *A. bengalensis*, which species Prof. Schlegel enumerates from Siao, Sangi Islands, whence I got *A. moluccensis*. I doubt whether it will be possible to keep these two species separate from one another, as they do not appear to be separated geographically.

ALCEDO ASIATICA, Sw.

I do not remember to have seen this bird in the Minahassa; if it occurs there at all, it must be very much rarer than *A. moluccensis*. I brought it from the Togian Islands; and it has been recorded by other naturalists from other parts of Celebes.

COLLOCALIA ESCULENTA (L.).

Builds its nests on the sandstone rocks bordering the Street Limbe in the north-east of the Minahassa, but occurs also in many other places in this district.

MACROPTERYX WALLACII (Gould).

Malay native name, "Burong-pedáng," *i. e.* "Knife-bird," because its wings are shaped like a knife.

Near Menado in March, Togian Islands in August.

Iris brown; feet grey; claws blackish; bill black.

Feeds on insects.

BUCEROS EXARATUS, Temm.

Native Malay name, "Karáka" (this is its cry). Alfurous name in the north of the Minahassa, "Karokok;" in Tondano, "Kerek-kerek."

(Native names often change from village to village, as the native language generally does in these parts of the East.)

The male is not pure white on the sides of the neck, but often yellowish.

These birds live in pairs together. Their flight is heavy and loud. They feed on fruits, such as waringui (*Urostigma*); and large flocks are often to be seen together on high fruit-trees. A common bird, not restricted to the north-eastern parts of Celebes, as I also found it near Paguatt, in the Gulf of Tomini, in September. It makes its nest in hollow trees or between wood, and lays two eggs.

CRANORRHINUS CASSIDIX (Temm.).

Native Malay name, "Burong-taun," *i. e.* "Year-bird" (see explanation of this name below). Alfurous name, "Uwak" (which is its cry).

I did not find this Hornbill in the neighbourhood of Menado, but at Lotta, six miles from there, in the mountains of the Minahassa, at all times, in the district of Gorontalo, where I saw large flocks when crossing the island from Gorontalo to Kwandang, and on the Togian Islands. The bird on the wing is a fine sight, the vividly coloured head being visible from far. As one looks down on a forest from a high point, it appears to swim over the green foliage more majestically than any other bird of Celebes. Its flight is heavy, slow, and noisy, and audible from far away. Its cry is very loud, and not immediately to be distinguished from that of the Black Ape of Celebes (*Cynopithecus niger*).

They are often to be seen in pairs together. If the female is shot, the male returns to the spot after having flown away frightened by the shot; and therefore frequently male and female can be procured. On a tree they are very active, jumping from branch to branch; they are fond of fighting, and are generally aggressive birds. They are said to fight even with man when wounded; and they bear small shot without being killed, except when hit in the head. They feed on forest-fruits. The nest is built on the tops of the highest trees; but I never heard of their practising the habit of allied species, *i. e.* the males walling the females up with mud; nevertheless I will not say that they do not possess this habit, though it would be remarkable that the natives should be ignorant of it.

The flesh is held in high estimation as food, being not only valued as a dainty, but for the property it is supposed to have of making men physically strong, the bird being so strong itself. Every one likes to preserve the head; but only few obtain the bird, because from high trees, where it rests, it can only be shot down with guns. It is always a triumph for a hunter to get a "Burong-taun." They are sometimes brought to Menado as game; but a specimen costs at least 6 florins. When my hunters killed one they always asked for the flesh; I also found it very tasty.

Many birds are afraid of the "Burong-taun;" but a small black bird attacks it, as it attacks birds of prey and Crows. It flies round when the Hornbill is on the wing, and pecks it on the head. I saw this myself several times, but could not make out what the small bird was; they were too high. (At Ternate these small birds were called "Benkole.")

Iris light brown to red; feet black, soles of the feet grey; claws black; bill yellow, base brownish, with dark brown bands; chin brownish red; round the eyes deep blue; throat light blue, with a dark blue patch in the middle. The casque is smooth in life; and the wavy unevenness in dried specimens is only in consequence of its shrivelling up after death.

The Malay name, "Burong-taun" ("year-bird"), originated in the belief that the bird gets every year a new band on the base of its bill; they say that even individuals with seven bands are to be found, taking together those of the upper and under mandible. There may be some truth in the statement that every year a band is added, though it requires proof. The young ones have no bands at all, they get them with age; and I really believe that their number is a characteristic of age, though a better characteristic is the serrated cutting-edges of the mandibles. At all events, the Malay name is not ill chosen, looking to the fact that old birds have more bands on the bill than young ones.

Scythrops novæ-hollandiæ (Lath.).

Malay native name, "Kapureh." Alfurous name in the Minahassa, "Krok" (its cry).

Very common in the Minahassa at all times; I obtained the bird from January till July; but I do not remember to have seen it elsewhere in Celebes. Lord Tweeddale mentions a specimen from Makassar; but he does not name the collector.

Scythrops novæ-hollandiæ feeds on fruits, such as waringui. It flies in troops.

If the *dead* bird is pressed on the belly, the same cry, *krok, krok,* can be made, as from the living. I found this the case even in specimens preserved in spirits of wine.

During the east monsoon, when it is very dry (May till November), the bird is said to cry much, and people declare "it will soon rain, the bird is thirsty."

A native told me he had once taken a young *Scythrops,* together with a young Crow, out of a Crow's nest. The bird is often to be seen along with Crows. At all events, it is interesting to note that oriental Cuckoos also lay their eggs in other birds' nests.

Phœnicophaes calorhynchus (Temm.).

Native Malay name, "Wakeke," or "Bakeke." Alfurous name in the Minahassa, "Koko-ondo," or "Tontonbara," *i.e.* "Foreteller-bird in daytime." (The Dutch in these regions call the bird "Geloofvogel bij dag.")

Male and female are similarly coloured.

Feeds on insects; makes a nest of twigs, like a Pigeon; very common; often to be seen near pathways on low shrubs, with its tail hanging down. In the sun the plumage is so brilliant that the bird is hardly recognizable. It is not shy, and does not fly away even after being shot at; it sits quiet if a bird by its side falls down; but I always got the impression that it is the fright which rivets it to the spot. It flies quickly or, rather, glides or slides between the foliage.

I got the bird in the Minahassa from January till July, near Limbotto from July till September, and on the Togian Islands in August.

The natives look upon this bird as a prophet (during the daytime). They converse for hours with it, imitating its many cries. It is said to have ten different calls. The natives interpret the answers which are given to them according to the mode of the cry; and they draw the bird near them by imitating its voice. They pretend that they only make plantations if this bird advises them to do so. If any one intends to do harm to another person the bird warns him. If any one sees two of these birds fighting together, rolling on the ground (a common occurrence, as they grasp each other violently), and one of them remains on the spot, he immediately retreats, because this signifies that in the neighbourhood lies a human corpse; some one has been murdered, and the observer will be charged with murder if he does not go away.

Many similar stories are to be heard. Once some one told me, at Remboken, on the shores of the Tondano lake, that several years before such a bird flew, crying very loudly, over the village, and that all the inhabitants became frightened as to what might happen. On the following day the part of the village over which it had cried was burnt down.

It would be very easy to laugh at such superstitions; but we educated Europeans—and not only our peasants—are full of similar superstitions and tales.

EUDYNAMIS MELANORHYNCHA, Müller.

Native Malay name, "Kao" ("Kalao" at Ternate). Alfurous name in the Minahassa, "Kokoreke" or "Kembaluwan," *i. e.*, "Foreteller at night" (for explanation see below).

A frequent bird, but not so common as the preceding. At all times in the Minahassa from January till July, Limbotto July. Iris fiery red.

I found mostly nutmegs in the stomach. Before nutmegs were cultivated in the Minahassa, which is only during the last few years, the bird fed on different fruits, chiefly waringuis, but now nearly altogether on nutmegs, which it swallows whole on account of the rind; the nutmeg itself is found uninjured in the crop and stomach; and the bird contributes greatly to the geographical dispersion of this spice. It damages the plantations very much. It is said to seek its food at night.

The skin is separated with difficulty from the muscles.

This Cuckoo also lays its eggs in other birds' nests. Its cries are of many kinds. If alone, it cries its native name *kao*; and if it wishes to warn its fellows, *hau, wau, wau, wau, wau, wau,* dying away.

Shy and lively in its actions. Roosts in the darkest spots in trees, where it can hardly be detected. If danger threatens, or if it hears a particular noise which frightens it, it communicates its alarm from afar to others; and it is no fable that the natives are warned by the bird hours before—if, for instance, a troop of horsemen approaches, or an official with his attendants. The native therefore often makes his preparations according to this bird's behaviour; hearing it in the forest he will always be cautious.

But its cry at night he consults as an oracle, and converses with the bird by imitating its cry and interpreting it. If he hears it at night near a house he augurs the death of a man.

CACOMANTIS SEPULCHRALIS (Müller).

Native Malay name, "Burong-pangil-udjan," *i. e.* "Rain-caller." Alfurous name in the Minahassa, "Embis," which signifies the same.

The natives say, after it has been dry a long time, that if the bird cries rain is coming. The cry is *tü, tü, tütütü,* like a flute.

Feeds on insects.

Builds its nest in thick climbing plants; collects dry leaves, and tries to fasten its nest with thick spider's-webs.

PYRRHOCENTOR CELEBENSIS (Q. & G.).

Native Malay name, "Kuwo."

Very frequent at all times in the Minahassa from January till July; Limbotto, July; Togian Islands, August; South Celebes, Tanette, Mandalli, Maros, in September and October.

The South-Celebean specimens appeared to me, when I first saw them, somewhat more brilliantly coloured than those from North Celebes; but afterwards, when I compared the skins in the cabinet, I could find no difference.

Feeds on fruits, such as waringui, nutmeg, and others.

Its call is *kau, kau, kau, kau, kau,* dying away.

Nest made of brushwood, like a Pigeon's nest, on trees in the deep forest.

If the native hears the bird crying in the forest, he becomes cautious, and searches for the reason. It cries when men approach, to warn its fellows; and these answer.

CENTROCOCCYX AFFINIS (Horsf.).

Native Malay name "Burong-kussu-kussu," *i. e.* "Bird of the high grass." Alfurous name in the Minahassa, "Totombarang."

Not so plentiful as the other Cuckoos.

Near Menado in March.

Generally to be seen on small trees and brushes and in high grass ("Kussu-kussu" = *Chrysopogon aciculatus*), where it roosts and also lays its eggs. Its cries are *klukuk, klukuk,* like a knock on a hollow cask, and *krah, krah,* as if a piece of linen were torn.

[To be continued.]

IV.—*Notes on a 'Catalogue of the* Accipitres *in the British Museum,' by* R. Bowdler Sharpe (1874). By J. H. Gurney.

[Continued from 'The Ibis,' 1878, p. 466.]

It is a remarkable circumstance that the genus *Milvus*, though so very widely distributed, and, as regards some of its species, so numerically abundant in the Old World, is wholly absent from the American continent.

In referring in the first instance to the typical species of the genus, *M. ictinus*, I may mention that an article on this Kite, published subsequently to Mr. Sharpe's volume, in Mr. Dresser's 'Birds of Europe,' contains a detailed account of its geographical distribution, including its range in Western Asia and North-western Africa, as well as its occurrence in Madeira and in the Canary and Cape-Verd Islands, none of which localities are quoted for it by Mr. Sharpe. Mr. Dresser also figures and describes the immature plumage of this species, which is not referred to by Mr. Sharpe. The female of *M. ictinus* is described by Mr. Dresser as differing from the male in coloration by "the head being slightly washed with rufous, the tail lighter, and in general the colours rather paler;" but I believe that these peculiarities disappear with age, as none of them exist in a Welsh female which I had in confinement, and which, after laying two eggs, died in its 28th year, and is now preserved in my collection*.

The three species which in Mr. Sharpe's Catalogue immediately follow *Milvus ictinus*, viz. *M. ægyptius*, *M. migrans*

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* Mr. E. T. Booth, in an interesting note on this species, published in the 'Field' of 12th October 1878, expresses his opinion that the female bird has the tail not so much forked as the male. I have not access to a sufficient series of dissected specimens to enable me to test the accuracy of Mr. Booth's view on this point; but it is one well worthy of attention, especially as a similar distinction between the sexes has been observed in Turkestan in the case of the Asiatic *M. melanotis* (*vide* 'Stray Feathers' for 1876, p. 127).

Mr. Booth also describes the colour of the iris in the young of *M. ictinus*, after first acquiring its nestling-plumage, as a "dirty lavender;" by Macgillivray it is described as "yellowish brown" (see his work on 'British Birds,' vol. iii. p. 275).

(to which Mr. Sharpe applies the specific name of *korschun**), and *M. affinis*, are very closely allied; and in their nestling-plumage † they are so much alike that specimens in this stage, of which the locality is unknown, cannot, in my opinion, be distinguished with certainty, though a clue to a correct diagnosis exists in the circumstance that Australian and Oceanic specimens of *M. affinis* are a little smaller than either *M. migrans* or *M. ægyptius*, and also that in *M. affinis* and in most specimens of *M. ægyptius* the upper mandible is of a slightly more elongated shape, with the culmen a little less proportionally elevated than in *M. migrans*.

In nestling birds the bill is black in all three species; but in old birds it is so in *M. migrans* ‡ and in *M. affinis* only, being of a yellow horn-colour in the adult *M. ægyptius*.

In adult birds the abdominal and tibial feathers are more rufous in *M. migrans* and in *M. ægyptius* than in *M. affinis*; but this rufous tint is sometimes lighter and brighter in *M. ægyptius* than in *M. migrans*.

In old birds of *M. migrans* the edges of the feathers of the entire head, neck, and upper breast are greyish white, the centre being occupied by a dark brown shaft-mark; in *M. ægyptius* and *M. affinis* this greyish-white ground-colour is usually limited to the chin and to that part of the sides of the neck which immediately adjoins the upper throat, though very old specimens of both sometimes occur in which the same tint pervades a very narrow portion of the forehead adjacent to the cere; but it never extends over the crown of the head, as is always the case in the adult of *M. migrans*; on this part, as well as on the nape and adjacent portions of the sides of the neck, the margins of the feathers in *M. affinis* and *M. ægyptius* are not white, but a decided rufous, though paler in some individuals than in others.

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* I agree with the view expressed by the Editor in 'The Ibis' for 1874, p. 360, and confirmed by Mr. Dresser in his article on this species in the 'Birds of Europe,' also by Mr. Blanford in his 'Eastern Persia,' vol. ii. p. 114, note, that the old specific name of *korschun* affixed by Mr. Sharpe to this Kite has been so applied on insufficient grounds, and should therefore be allowed to remain obsolete and in abeyance (*conf.* Ibis, 1875, p. 503).

† Mr. Hume, at p. 324 of his 'Scrap-book,' quotes a letter of mine which was written at a time when I was not acquainted with the true nestling-plumage of the Australian *M. affinis*, and which, in consequence, alludes to it in incorrect terms. This error on my part also appeared in 'Stray Feathers' for 1873, p. 161, note, as it had previously in 'The Ibis' for 1866, p. 422.

‡ The bill, however, is occasionally, though rarely, a little mottled with horn-colour in some specimens of *M. migrans*.

The upper portions of the ear-coverts are much darker than the surrounding plumage in the adults of *M. ægyptius* and *M. affinis*, but hardly at all so in those of *M. migrans*.

The brown shaft-marks on the feathers covering the upper portion of the breast in the adults of *M. migrans* are, so far as I have observed, always somewhat broader than those on the corresponding feathers of the other two species; and though these shaft-marks are of variable breadth in both *M. ægyptius* and in *M. affinis*, and in some specimens of both these species are nearly as broad as in *M. migrans*, I believe that they never quite equal in breadth those of *M. migrans*, and that this difference between that species and *M. ægyptius* and *affinis*, though not very great, is nevertheless quite constant, and therefore important.

The yellow horn-colour of the bill in *M. ægyptius* is acquired very gradually, and apparently less rapidly in some individuals than in others; it is not very uncommon to find specimens of this Kite which have attained their adult dress before the bill has assumed its yellow colouring; such specimens bear a considerable resemblance to the adults of *M. migrans*, and still more to those of *M. affinis*.

In my edition of the late C. J. Andersson's 'Notes on the Birds of Damara Land,' I inserted, at the end of his observations upon *M. migrans*, the following remark:—"Mr. Andersson's last collection contained specimens of this Kite from Ondonga, in both adult and immature plumage; the specimens in apparently adult dress did not, however, exhibit the grey tints on the head which distinguish the adult Black Kites of Europe and Northern Africa, but which I have not yet met with in any South-African specimen"*. Unfortunately the supposed adult specimens of *M. migrans* here alluded to have been dispersed, and I have only been able to reexamine one of them, which was killed at Ondonga, in Ovampo-land, on 16th of December, and is now preserved in the Norwich Museum. I now find that this example is not in reality one of *M. migrans*, but is unquestionably a specimen of *M. ægyptius*, which had attained adult dress but had not acquired the yellow bill, although the mandibles exhibit some slight indication of the approaching change of tint. I have no doubt that other examples of *M. ægyptius* in Mr. Andersson's collection were in a similar stage of coloration, and were mistaken by me for specimens of *M. migrans* in which the usual grey tint was absent from the head, as mentioned in the extract quoted above from the 'Notes on the Birds of Damara Land;' and I strongly suspect that many other supposed South-African examples of *M. migrans*, and especially those said to have been found breeding on the banks of the Caledon River* ought to have been referred to this peculiar, but not unusual, phase of *M. ægyptius*.

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* *Vide* 'Birds of Damara Land,' p. 22.

At the present moment I know of but one South-African example of the veritable *M. migrans* in any collection in this country. This, which is a young male in change, was obtained by Mr. Andersson at Ondonga on the 16th November, and is now preserved in the Norwich Museum.

In 'The Ibis' for 1869, at p. 449, I mentioned, as examples of *M. migrans*, a Kite obtained in Madagascar on the 8th September 1862, and previously recorded in 'The Ibis' for 1863, p. 337, which was presented by Mr. Edward Newton to the Norwich Museum—and also a younger specimen obtained at Pomony, on Johanna or Anjuan Island, in the Comoro group, in November 1863, and which is preserved at Cambridge. I have recently reexamined these specimens, and believe them both to be, in reality, examples of *M. ægyptius* in which the bill has not yet assumed its yellow colouring. If I mistake not, the claim of *M. migrans* to admission into the fauna of Madagascar and of the Comoro Islands rests upon these two examples (which are the two referred to by Dr. Hartlaub in his Vög. Madag. p. 28*); and if I am right in my present conclusion, this claim cannot be substantiated.

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* *Vide* Sharpe's edition of Layard, p. 51.

The Eastern-Asiatic range of *M. migrans* has not, as yet, been very satisfactorily defined.

The 'Revised List of the Vertebrated Animals exhibited in the Gardens of the Zoological Society,' which was published in 1872, contains, at p. 210, the following entry, under the head of *Milvus migrans*:—

"*b.* Presented by G. B. Baird, Esq., May 26, 1861, from North China."

This specimen, which was unfortunately not preserved after its death, was frequently and carefully inspected by me whilst it was living; and I recorded it as a genuine example of *M. migrans* in 'The Ibis' for 1866, p. 422, where I also mentioned having seen an example from Afghanistan; the latter being a specimen which was preserved, when I saw it, in the late Museum of the East India Company in Leadenhall Street, though I do not find it mentioned in Horsfield and Moore's catalogue of that collection. Another specimen, from Bagdad, which I examined at the same time, is entered in the above-named catalogue as an example of *M. govinda*, but, according to my memorandum, was in reality *M. migrans*. I may add that Mr. Blanford includes *M. migrans* amongst the birds of Persia, and that I have recently had an opportunity of examining specimens of this Kite obtained by him in that country.

Milvus migrans has been found breeding in Turkestan, according to M. Severtzoff's notes, translated by Mr. Dresser†; and further to the north its occurrence in summer in Siberia, between Salair and Tomsk, has been noticed by Dr. Finsch‡; and its abundance at Tomsk at that season, as well as its presence to the north of that town as far as lat. 61°, has been recorded by Mr. Seebohm§. A still more eastern locality for this Kite is mentioned in the 'Birds of Europe' by Mr. Dresser, who says that "to the eastward it occurs about as far as the Lena;" and the specimen from North China, to which I have already alluded, shows that it has occurred even much further to the east than the limit assigned to it in that direction by Mr. Dresser.

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* These two specimens are also mentioned by Mr. Dresser in his article on *Milvus migrans* in the 'Birds of Europe.'

† *Vide* Ibis, 1875, p. 104.

‡ *Vide* Ibis, 1877, p. 55.

§ *Vide* Ibis, 1878, p. 323.

The Asiatic range of *Milvus ægyptius* is not alluded to by Mr. Sharpe; but though it is very limited in comparison with that of *M. migrans,* it ought not to be overlooked.

The title of "Arabian Kite," which Latham conferred on this species* in 1781, has been justified in recent times by the existence of a colony of these Kites at Wády Gharandel, in the Sinaitic Peninsula, recorded by Mr. Wyatt†.

The occurrence and nidification of the Yellow-billed Kite in Palestine has been noted by Canon Tristram‡; and according to Von Heuglin it has also been met with in Asia Minor§. There is therefore no doubt that the summer migration of this species extends to, at least, some countries of Western Asia.

The geographical ranges of the eastern species of the genus *Milvus* are especially difficult to define with accuracy, in consequence of the very remarkable and perplexing manner in which these species or races merge into one another. The smallest of the *Milvi,* the Australian *M. affinis,* contrasts conspicuously in its dimensions with the great Japanese *M. melanotis*; and yet the one species is connected with the other by a gradation of specimens so continuously intermediate, both in size and in coloration, that, though it may be convenient to adopt the view of Mr. Sharpe, which is also that of Mr. Hume, that the series is divisible under the three specific heads of *M. affinis, M. govinda,* and *M. melanotis,* the boundary-lines between these three species seem to me not to be capable of so precise a definition as to be entirely satisfactory.

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* *Vide* Lath. Gen. Syn. vol. i. p. 61.

† *Vide* Ibis, 1870, p. 2.

‡ *Vide* Ibis, 1859, p. 24, and 1865, p. 256.

§ *Vide* Orn. Nordost-Afrika's, vol. i. p. 100.

The specific name of "*affinis*" was given by Mr. Gould to the *Milvus* inhabiting Australia, which appears to me to be identical with specimens that I have examined in the British and Norwich Museums from East Timor and Macassar, as well as with one in the British Museum from Cochin China: all these specimens agree with those which I have seen from Australia in having the underside of the primaries of a dark brown, either entirely whole-coloured, or varied only by a very slight and almost imperceptible mottling of grey or greyish white, never amounting to a white patch*.

The following are the principal measurements of seven of these Kites (all adults) which I have recently examined:—

	Wing. in.	Tarsus. in.
In the Collection of Lord Tweeddale.		
South Queensland	15·8	2
Port Albany, North Australia	16·8	1·9
In the Norwich Museum.		
Sydney	16·8	1·9
East Timor, ♀	15·4	1·9
East Timor, ♀	15·9	1·8
Macassar, ♀	16·5	2
Macassar, ♀	16·9	2†

In addition to the localities above mentioned, Mr. Sharpe states that *M. affinis* ranges "as far north as Chusan," and Count Salvadori that it has been obtained in Yule Island, near New Guinea.

The Kite inhabiting Ceylon and the smallest specimens of Indian Kites so closely resemble the typical *M. affinis* that I have long been in the habit of referring them to that species; but their average size is slightly larger, and the great majority of specimens have more or less white on the under surface of the primaries, frequently presenting a decided white patch; indeed I have seen no Ceylon specimens*, and but one Indian, in which the white on this part was entirely absent. The last-named specimen is preserved in the Norwich Museum, and is, I think, certainly from India, though the exact locality where it was obtained has unfortunately not been recorded; it measures in the wing 18 inches, and in the tarsus 2 inches.

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* *Conf.* David et Oustalet, 'Oiseaux de la Chine,' p. 16 (sub *Milvus govinda*).

† The following wing-measurements of *M. affinis* are given by Captain W. V. Legge, in his valuable work on the Birds of Ceylon, p. 81, for comparison with those of the Kite of that island, viz.:—three from Australia, respectively 15, 15·2, and 15·8; two from Timor, both 16·5; and one from Macassar, 16·6.

Captain Legge, in his article on the Ceylon Kite (*op. cit.* p. 81), in which the subject of the Indian Kites and their southern and south-eastern allies is ably treated, considers that the Ceylon bird belongs to a race not absolutely identical either with the Australian *Milvus* or with the "ordinary brown-plumaged bird of the plains of India." I think, however, that the smallest Indian specimens are not to be distinguished from those obtained in Ceylon†. An adult from Jafna, in the Norwich Museum, measures in the wing but 17·1 inches, and two younger birds 16·6; the ordinary corresponding measurements of Ceylon specimens would seem, however, to be somewhat greater, being quoted by Captain Legge as ranging from 17·4 inches to 18·5, the latter measurement being taken from a female bird. Some Indian Kites are equally small, as will appear from the following dimensions of four specimens in the Norwich Museum, all of which are fully adult, except the last, which is nearly so:—

	Wing. in.	Tarsus. in.
India (exact locality unknown)	17·2	2
Deccan	17·5	2·25
Calcutta	17·7	1·9
♂, Maunbhoom	16·9	2

The Kite of Ceylon and the smallest Indian Kites appear, in fact, to hold a position intermediate between the typical *M. affinis* of Australia and the ordinary Indian Kite which has for many years borne the specific name of "*govinda*"—

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* Captain Legge, however, in his description of the Kite of Ceylon, speaks of "the amount of white varying much in individuals, some being quite as dark as *M. affinis*" (*vide* 'Birds of Ceylon,' p. 81).

† Captain Legge refers the Ceylon Kite to *M. govinda*, Sykes, as having "more affinity" with that species than with the typical *M. affinis*.

though its right to that title has of late been challenged*, and it is not easy to say with certainty whether these small Kites of India and Ceylon are more correctly referable to *M. affinis* or to *M. govinda*. With reference to this subject, however, it may be convenient here to quote a portion of the remarks of the editor of 'Stray Feathers' at p. 35 of the volume for 1875; Mr. Hume there writes, "The following are approximately the variations in the sizes of the wing of the three races which we have in India:—

			in.		in.		in.		in.
affinis,	wings,	male,	16·75	to	17·25,	female	17	to	17·75
govinda,	„	„	17·9	„	18·5,	„	18·1	„	19·5
major,	„	„	19	„	20·5,	„	19·25	„	21·5

. . . . . the two former, *affinis* and *govinda,* inosculate, so that while some Indian specimens are absolutely identical with the Australian *affinis,* others may be met with which it is difficult to decide whether to assign to *govinda* or *affinis.*"

Mr. Hume again observes, in a footnote to p. 229 of 'Stray Feathers' for 1875, "According to Mr. Brooks's views we have only two Kites in India; in my opinion we have most distinctly three, viz. *affinis,* Gould, comparatively rare, but more plentiful to the south and east; *govinda,* Sykes, the common Kite everywhere; and *major* (or it may be *melanotis*), rare except in the hills, found on the plains chiefly in the cold weather, and almost, if not entirely, unknown in Southern India" †.

In the first of the two passages above referred to, Mr. Hume speaks of *M. affinis* as occurring in Upper Pegu; and in 'Stray Feathers' for 1878, p. 23, he enumerates it amongst the birds of Tenasserim.

The Kite for which Mr. Hume retains the specific name of *govinda* appears to be that which is alluded to in the following terms by MM. David and Oustalet at p. 17 of their recent work on the Birds of China :—"Le Milan govinda, qui est très-abondamment répandu dans toute l'Inde, est aussi fort commun dans la Malaisie et la Cochin-Chine; de là il arrive assez fréquemment jusque dans la Chine méridionale, où je l'ai rencontré plusieurs fois ; mais cette espèce est rare sur la côte chinoise et en est toujours chassée par la concurrence victorieuse du grand Milan indigène" (*M. melanotis*).

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* See Mr. Brooks's remarks in 'Stray Feathers' for 1876, p. 272; but see also Mr. Hume's footnote referring to the same, and his previous footnote in 'Stray Feathers' for 1875, p. 22, also Captain Legge's observations on this controversy at p. 82 of his work on the Birds of Ceylon.

† Since writing this article, I have seen the valuable observations of Mr. Oates on these three Kites as observed in Lower Pegu, contained in 'Stray Feathers' for 1878, p. 44, to which I would refer the reader.

The late Mr. Swinhoe, at p. 88 of 'The Ibis' for 1870, referred the Kite he met with in Hainan to *M. govinda*, and gave the wing-measurement of a male as 17·8 inches, with some further particulars showing the distinction between it and the Kite of Northern China. An adult female brought by Mr. Swinhoe from Hainan is preserved in the Norwich Museum, and appears to me to be also an example of the intermediately sized Kite to which, following the example of Mr. Swinhoe, Mr. Sharpe, and Mr. Hume, I have applied the specific name of *govinda*; this specimen has a wing-measurement of 18·9 inches.

Mr. Sharpe is, in my opinion, unquestionably correct in identifying *Milvus major* of India with *M. melanotis* of Japan, Formosa, and China. I have examined a considerable number of specimens from all these localities, and can detect no difference between examples from these different localities, either as regards the extent of white under the wing (a somewhat variable characteristic*), or in any other particular.

Some specimens of *M. melanotis* exhibit hardly any rufous tint, whilst in others it is conspicuous, especially about the neck, interscapular region, and lesser wing-coverts. The most rufous specimen I have seen is a female from Japan in the Leyden Museum, which is the original of the second plate of this species in the 'Fauna Japonica,' the preceding plate (No. 5) being an excellent representation of this Kite in its non-rufous phase.

I am indebted to the kindness of Lord Tweeddale for the loan of a good series of oriental Kites, amongst which is an immature specimen from Toughoo, the sex of which is unfortunately not marked, but which seems to me to be a male of *M. melanotis*; its wing-measurement is 19·5 inches, the tarsus 2·2; and the white patch on the underside of the primaries is large and conspicuous. This is the only specimen of *M. melanotis* from Burmah which has come under my notice.

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* *Cf.* Mr. Brooks's remarks on this point in 'Stray Feathers' for 1875 p. 275.

With regard to the western range of *M. melanotis*, a subject which is not particularly referred to in Mr. Sharpe's volume, Dr. Finsch has recently recorded its presence, about the beginning of June, at the lakes Nor-Saissan and Marka-kul, near the north-western frontier of the Chinese Empire*.

Colonel Prjevalsky, speaking of *M. melanotis*, says that "throughout Mongolia, Kan-su, and about Koko-nor it is common," but apparently as a summer visiter only. He also mentions *M. govinda* as a summer visitor to the Ussuri country, where he states that it is then common; but I do not clearly understand whether he uses the specific name of "*govinda*" as synonymous with "*melanotis*," or as indicative of a smaller race †.

In 'The Ibis' for 1875, at p. 104, Mr. Severtzoff, in his "Fauna of Turkestan" (as translated by Mr. Dresser), records *M. melanotis* as breeding in localities of medium altitude throughout Turkestan, but speaks of it as synonymous with "*M. govinda*, Sykes;" this statement must, however, be taken in connexion with a passage, which seems to modify it, in Mr. Severtzoff's letter to the editor of 'Stray Feathers,' in which, at p. 422 of the volume for 1875, he writes, "I mistook some Turkestan (Russian) Kites with blackish ear-feathers for the true *M. govinda*; my specimens are *M. ater*."

It is, however, certain that in Eastern Turkestan a Kite occurs which is not *Milvus migrans*, and which, judging from two Yarkand specimens in the British Museum, ought, in my opinion, to be referred to *M. melanotis*. Mr. Scully, in his very interesting "Contributions to the Ornithology of Eastern Turkestan," published in 'Stray Feathers' for 1876, speaks, at p. 92, of "*Milvus melanotis*" being common about Yarkand at the end of May, and at p. 126 gives the measurements of four Eastern-Turkestan specimens, three males and a female, with reference to which Mr. Hume adds the following editorial note:—"These specimens, though clearly very closely allied to *M. major*, appear to me all markedly smaller than this latter." Mr. Scully's wing-measurements of his three Turkestan males are, respectively, 18·8 inches, 18·9, and 19·9, and that of the female (an immature bird) 18·75; in the case of the two specimens from Yarkand which I have recently examined at the British Museum, the sex is not recorded, but the wing-measurements slightly exceed those quoted by Mr. Scully, being in the one 20·2 inches, and in the other 20·5. With reference to Mr. Hume's remark which I have just quoted, I may observe that though *M. melanotis* seems to be somewhat more distinct from *M. govinda* than the latter is from *M. affinis*, yet the larger specimens of *M. govinda* approach so closely to the smaller examples of *M. melanotis* that it is not always easy to distinguish them with certainty, and that, if I mistake not, specimens of this doubtful character chiefly occur in those countries in which the northern range of *M. govinda* and the southern limit of *M. melanotis* meet or overlap.

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* *Vide* Ibis, 1877, pp. 53, 54.

† *Vide* 'Ornithological Miscellany,' vol. ii. pp. 152, 153.

There is reason to believe that exceptional migrations of *M. melanotis* may occasionally extend much further to the westward than either Mongolia or Turkestan, as in the 'Revue et Magasin de Zoologie' for 1869, MM. Alléon and Vian describe in detail a young male Kite, with a wing-measurement of very nearly 19 inches*, and agreeing in coloration with the immature dress of *M. melanotis* when beginning to partially lose its nestling-plumage, which was killed near Constantinople on 6th October 1867. This Kite formed one of a company of six individuals, apparently of the same species, which appeared in that neighbourhood a month after the Black Kites (*M. migrans*) had departed on their autumnal southward migration, and of which the survivors remained there, consorting with some Red Kites (*M. ictinus*), till the end of the following February.

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* $0^{m}\cdot48$, French measure.

Judging from the particulars given by MM. Alléon and Vian, I believe they are right in referring this interesting specimen to *M. melanotis*; but there is one passage in their article on the subject respecting which I would offer a remark, as I think that it requires some modification. Speaking of their diagnosis of the specimen in question, MM. Alléon and Vian observe, "Dans la Govinda, la plume présente une mèche fauve entre deux bandes brunes; dans le Milan noir, au contraire, c'est un trait brun qui descend sur la tige, entre deux bordures fauves;" a similar statement also occurs at p. 16 of 'Les Oiseaux de la Chine,' where MM. David and Oustalet, after describing *M. melanotis*, add, "Dans les jeunes de *Milvus ater* c'est le centre des plumes qui est foncé et le bord clair." I wish to point out that these descriptions of the plumage of the young *M. migrans* do not hold good in all cases; for instance, in a nestling from Western Germany which is preserved in the Norwich Museum they are applicable to the feathers of the nape only, but not to those of any other portion of the plumage.

Before leaving the genus *Milvus* I may mention that Mr. Sharpe, at p. 459 of the Addenda to his volume, inserts the late Mr. Andersson's description of the Indian Kite for which he proposed the specific name of "*palustris*." But this name was withdrawn by its author in the P. Z. S. for 1875, p. 25, where he writes that "it appears to be the young of the common Govinda Kite, which is subject to considerable variation in size as well as in colour;" and I therefore do not think it needful to refer further to it.

The square-tailed Kite of Australia, *Milvus isurus*, Gould, was isolated by the late Professor Kaup in a distinct genus, to which he assigned the name of "*Lophoictinia*." This separation seems to me to have been made on somewhat slender grounds; but as it has been adopted by Mr. Sharpe, it may perhaps now be considered as an accepted subdivision.

In the P. Z. S. for 1875, at p. 338, Mr. Sharpe gives a full description of a very young specimen of *Lophoictinia isura*, and states that the bird which he had previously described in his work as "young," proved not to be "really immature."

I have already alluded, in 'The Ibis' for 1870, p. 536, to a specimen of this Kite in the Norwich Museum, which there is reason to believe was killed in New Zealand, where, if such was really the fact, it can only have occurred as an accidental visitor.

[To be continued.]

V.—*On* Agapornis swindernaina. By Dr. G. Hartlaub.

Agapornis swinderniana (Kuhl).

Psittacus swindernianus, Kuhl, Consp. Psittac. (1820) p. 62, t. 2 (fig. mala).

Psittacula swinderniana, Wagl. Monogr. (1832) p. 621.

Agapornis swinderniana, Selby, Nat. Libr. vol. vi. (1836) p. 118, t. 2 (fig. mala); Bourj. Perr. t. 98 (Kuhl!); Brehm, Papag. t. 36 (Kuhl!).

Poiocephalus swindernianus, Sw. Classif. B. ii. p. 301.

Psittacula swindereni, Finsch, Papag. ii. p. 632; Cab. Journ. Orn. 1877, t. 5. f. 2 (fig. bona); Cab. & Reichen. Orn. Centralbl. 1876, p. 26, et 1878, pp. 64.

? *Leona Parrakeet*, Lath. Gen. Hist. ii. p. 263, undè
Agapornis picta, Hartl. Orn. Westafr. p. 169.

Diagn. Læte psittacino-viridis; semitorque nuchali nigro, alteroque inferiore ex fulvescente luteo; colli lateribus, pectore et interscapulio viridescente lavatis; tergo inferiore, uropygio et supracaudalibus lætissime cyaneis; rectricibus duabus intermediis viridibus, reliquis in dimidio basali scarlatinis, fascia anteapicali latiore nigra, ipsis apicibus viridibus; rostro obscure corneo-cærulescente. Long. tot. 15 cent., al. 9 cent. 4 mill.

In the year 1820 Kuhl described and figured, in his well-known 'Conspectus Psittacorum,' a new Parrakeet from a specimen in the Laugier collection at Paris, which he named, after the famous Professor van Swinderen, of the Groningen University, *Psittacus swindernianus*. This unique type specimen having disappeared, and no other one existing in any European collection, Dr. Finsch was fully justified in stating, in his monograph of Parrots, that the species was a very doubtful one, and that he was inclined to take it for an "artefact."

In the second volume of his 'General History of Birds,' Latham described a Parrakeet from Sierra Leone, after a specimen in the collection of Mr. Brogden—the *Agapornis picta* of my book on the Birds of Western Africa. What has become of this specimen in later times is entirely unknown. Now I feel almost sure that this "Leona Parrakeet" of old Latham is nothing but the Swinderen's Parrot of Kuhl, the only essential difference in the descriptions of both being that Latham designates the colour of the chin and throat as "of a fine pale grey," whereas these parts are yellowish green in *Psittacus swindernianus.* This difference is nevertheless an important one; and, for the present, the question regarding the identity of both birds remains an open one.

It is not quite certain whether the figure published by Mr. Selby in vol. vi. of 'The Naturalist's Library' (Parrots) is simply copied from Kuhl; but very probably it was. When Mr. Selby writes, "only seen in a few collections," this was certainly but a mere phrase. The figure he gives proves that it was not taken from a specimen. In this figure the median tail-feathers are of a most brilliant blue, instead of dark green, and the colour of the nuchal band is a pale sulphur-yellow, instead of the dark fulvous yellow it ought to be. Also his indication of South Africa being the habitat is a mere hazardous assertion.

Kuhl's figure in the Nov. Act. Leop. is also a very poor one, and not in accordance with the description he gives. The obsolete greenish-blue colour of the uropygium and upper tail-coverts, as well as the fine yellow colour of the neck, are altogether false.

Up to the year 1876 the "*Psittacus swindernianus*" of Kuhl was not to be found, so far as I know, in any collection of Europe or America. It was certainly therefore a most interesting fact, that one of the collectors of Dr. H. Dohrn, of Stettin, Mr. Schweizer, rediscovered this fine species in the colony of Liberia.

Dr. Dohrn informs me that Mr. Schweizer met with this Parrot in the interior of the colony, where it frequents the fruit-trees and oil-palms in flocks of from ten to twenty individuals, but is not very abundant. Ten examples were procured altogether, whereof two are now in the Berlin Museum, one in the Bremen Museum, one in the Museo Civico of Genoa, and one in the collection of Count E. Turati of Milan. Four very fine skins which remain in Dr. Dohrn's hands, are still to be had at 60 marks apiece. In Cabanis's 'Journal für Ornith.' for 1877 there is a very good figure of the species, taken from one of these specimens.

Kuhl's description being very incomplete, I subjoin a better one:—

Ad. ♂. The principal colour is a vivid Parrot-green; sides of head, under wing-coverts, and under tail-coverts paler; a short nuchal band black, irregularly bordered below by another of an obsolete fulvous yellow; this yellow band extends in a paler and more indistinct hue round the fore neck, upper part of back, throat, and breast, more or less shaded with a fulvescent lemon-yellow; lower part of back, uropygium, and upper tail-coverts of an intense and most splendid blue; basal half of tail-feathers of a fine scarlet, followed by a black band before the green tips; underside of the apical part of the rectrices pale glaucous bluish; scapulars and smaller wing-coverts green; larger wing-coverts and remiges black, margined with green on the outside; beak of a dark bluish horn-colour, with paler tomiæ and culmen; feet bluish. Total length 15 centims., wing 94 mill., tail 34 mill.

The sexes do not differ in colour; but in the young bird the breast is not yellowish, as in the adult, but of an obsolete and pale greyish green, and the black nuchal collar is entirely wanting.

VI.—*Note on the American Crows of the Subgenus* Xanthura.

By P. L. Sclater.

In a communication on this subject read before the Royal Academy of Sciences of Belgium in 1874* by M. Dubois, four "local varieties" are recognized of *Cyanocorax* (*Xanthura*) *incas* of authors, which M. Dubois distinguishes as follows from the typical form :—

α. *cyanodorsalis* : cervice cæruleo-violacea, dorso cæruleo : ex Nov. Granad. centr. et merid.

β. *cyanocapilla* : pileo cyaneo ; vitta pilei inter oculos candida : ex Nov. Granad. bor. et Am. centr. ad Guatemalam.

γ. *cæruleo-cephala* : pileo toto cyaneo, sine vitta alba ; abdomine flavissimo : ex Venezuela.

δ. *luxuosa* : præc. sim. sed corp. inf. viridi-luteo : ex Mexico et Texas.

Having lately had occasion to reexamine the series of specimens of this group in my own collection and in that of Messrs. Salvin and Godman (in all twenty-two in number), I have a few remarks to offer upon the synonymy and distribution of these birds, which have not been quite correctly given either by M. Dubois or by Mr. Sharpe, who has followed M. Dubois in treating of the genus.

(1) Mr. Sharpe, in his Catalogue (vol. iii. p. 128 *et seqq.*), reduces M. Dubois's five forms to four species by uniting var. *a. cyanodorsalis* of Dubois with the typical *incas*. But here M. Dubois is certainly right. Mr. Sharpe cannot have seen the Bogota bird, or he would never have reunited it with the typical *C. incas*.

(2) M. Dubois and Mr. Sharpe both refer the synonym "*Cyanocorax cyanocapillus*, Cab. in Tsch. Faun. Per. Aves, p. 233," to the *Guatemalan* form. But on referring to the original work it will be found that this name is based primarily on several specimens from Xalapa, Mexico, in the Berlin Museum, with which, it is stated, one example from La Guayra (*i. e.* Venezuela) nearly agrees, except in its yellow

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* "Remarques morphologiques sur les espèces du sous-genre *Xanthoura*. Par M. Dubois," Bull. Ac. Belg. 2ᵉ sér. xxxviii. p. 488.

under surface. Subsequently, in the 'Museum Heineanum' (i. p. 223), Dr. Cabanis proposed to shift his name onto the Venezuelan bird, *i. e. Xanthura cæruleocephala* (Dubois), and to leave the Mexican bird as *X. luxuosa.* But it is in any case erroneous to apply the term *cyaneocapilla* to the Guatemalan form; and "*cyaneocapilla,* Cab.," is, in strictness, merely a synonym of "*luxuosa,* Lesson."

(3) M. Dubois and Mr. Sharpe both refer "*Xanthoura guatimalensis,* Bp. Consp. i. 380," to the Guatemalan form, as would be natural enough, judging from the name only. But on looking to Bonaparte's characters, "*pileo cyaneo; abdomine flavissimo,*" it will be seen at once that they by no means fit the Guatemalan bird. The fact is, I believe, that this diagnosis was founded on Venezuelan skins (*i. e.* on *Xanthura cæruleocephala*) which it does apply to exactly; for I have a skin in my collection, received from Verreaux, which, when I bought it, was marked "*Xanthura guatimalensis,* Bp.," in Bonaparte's own writing*. In this, as in many other cases, Prince Bonaparte probably put down "Mus. Lugd. et Brux." from recollection, or from imperfect notes, and added the diagnosis from another specimen.

But although I have thus destroyed both the names hitherto applied to the Guatemalan bird, I have no intention of proposing another for it, as I consider it to be much too close to the Mexican *X. luxuosa* to require any different specific name. According to my ideas the four separable forms of *Xanthura* should stand as follows, beginning from the north:—

1. *X. luxuosa* (Less.), from Texas, Mexico, Guatemala, and Honduras. (=*X. luxuosa* et *X. cyaneocapilla,* Sharpe.) Head blue, with a narrow white postfrontal band; abdomen yellowish green, in southern specimens more yellow.

2. *X. cæruleocephala* (Dubois), from Venezuela. Head blue, with a very narrow postfrontal band (almost obsolete in some skins†); abdomen bright yellow.

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* In my American Catalogue (p. 144) this skin was wrongly entered as "*Cyanocorax incas a,* Ecuador," the true *C. incas* not being then represented in my collection.

† *Cf.* Sharpe, *l. c.* p. 131. In a skin from Caripé (*Goering*), Mus. S.-G., the white band is of this character.

3. *X. cyanodorsalis* (Dubois), from Central Columbia (*X. incas*, part., Sharpe). White postfrontal band extended over vertex; nape blue; back washed with blue; abdomen pale yellow.

4. *X. incas* (Bodd.), from Western Columbia, Ecuador, Peru, and Bolivia. Whole nape and top of head white, slightly washed on the nape with bluish in some specimens; back green; abdomen yellow.

Of this last species I have examples before me from Antioquia (*Salmon*); Bucaramanga, Magdalena valley (*Wyatt*); Maraviña, Ecuador (*Buckley*); Peru; and Yungas, Bolivia (*Buckley*).

In my opinion these four forms, of which only the more salient characters are above given, are entitled to specific rank. The Venezuelan form comes nearest to the northern bird, as is the case in other groups with similar distribution. In the same way *Catharus aurantiirostris* of Venezuela is more like *C. melpomene* of Mexico and Central America than any of the Columbian forms of the same genus.

VII.—*On recent Additions to our Knowledge of the Avifauna of the Sandwich Islands.* By P. L. Sclater.

(Plate II.)

Some time ago I contributed to this Journal* a summary of what was then known of the avifauna of the Sandwich Islands, based mainly upon an article upon the subject by Mr. Dole, which had appeared in the 'Proceedings' of the Boston Society of Natural History a short time before. From its remoteness from all other land, and from the known peculiarities of its fauna, the Sandwich-Island archipelago presents features of no ordinary interest; and it is much to be desired that a complete investigation of its native fauna and flora should be made before they are destroyed by civilization or contaminated by the intrusion of wandering forms of general distribution. Looking to the facility of access to the Sandwich Islands, and to the presence of a civilized race there, it is much to be wondered at that this investigation has not yet taken place. There can be no doubt, however, that we are still very imperfectly acquainted with many branches of the natural history of the Sandwich Islands, and that there remains in this group a most interesting piece of work to be performed by any naturalist who will devote some time to the investigation of the islands, and ascertain exactly what peculiar species are found in each of them, and what are generally distributed throughout the archipelago.

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* Ibis, 1871, p. 356.

On the present occasion I have to chronicle three contributions made to the avifauna of the Sandwich Islands since 1871, each of which has added something towards our stock of knowledge on this subject.

In the 'Bulletin de la Société Philomathique de Paris' for May 1877, as already recorded in this Journal*, M. Oustalet has described a new genus and species belonging to the Hawaian avifauna under the name *Loxioides bailleni*. Of this very remarkable type, through the kindness of the authorities of the Jardin des Plantes, who have parted with one of their specimens of it in exchange, I am now enabled to give a figure (Plate II.). It will be at once observed that *Loxioides* in general appearance is closely allied to *Psittirostra*. The form, size, and distribution of colours are similar. When we come to a closer comparison of the skins the result arrived at is the same. The wing-formula is nearly the same in each. There are nine fully formed primaries, of which the first is about equal to the fifth, and the intermediate ones are the longest in the wing. In *Psittirostra* these three primaries are nearly equal in length; in *Loxioides* the second is rather more elongated beyond its fellows. The structure of the feet in the two forms is also nearly similar, those of *Psittirostra* being, however, shorter and stouter. The tarsi in both cases are unmistakably *Oscinine*, and the divisions of the scutes are quite obsolete. In the shape of the bill only, as will be seen by the outlines (*a* of the bill of *Loxioides*, and *b* of that of *Psittirostra*) given on Plate II., there is considerable diver-

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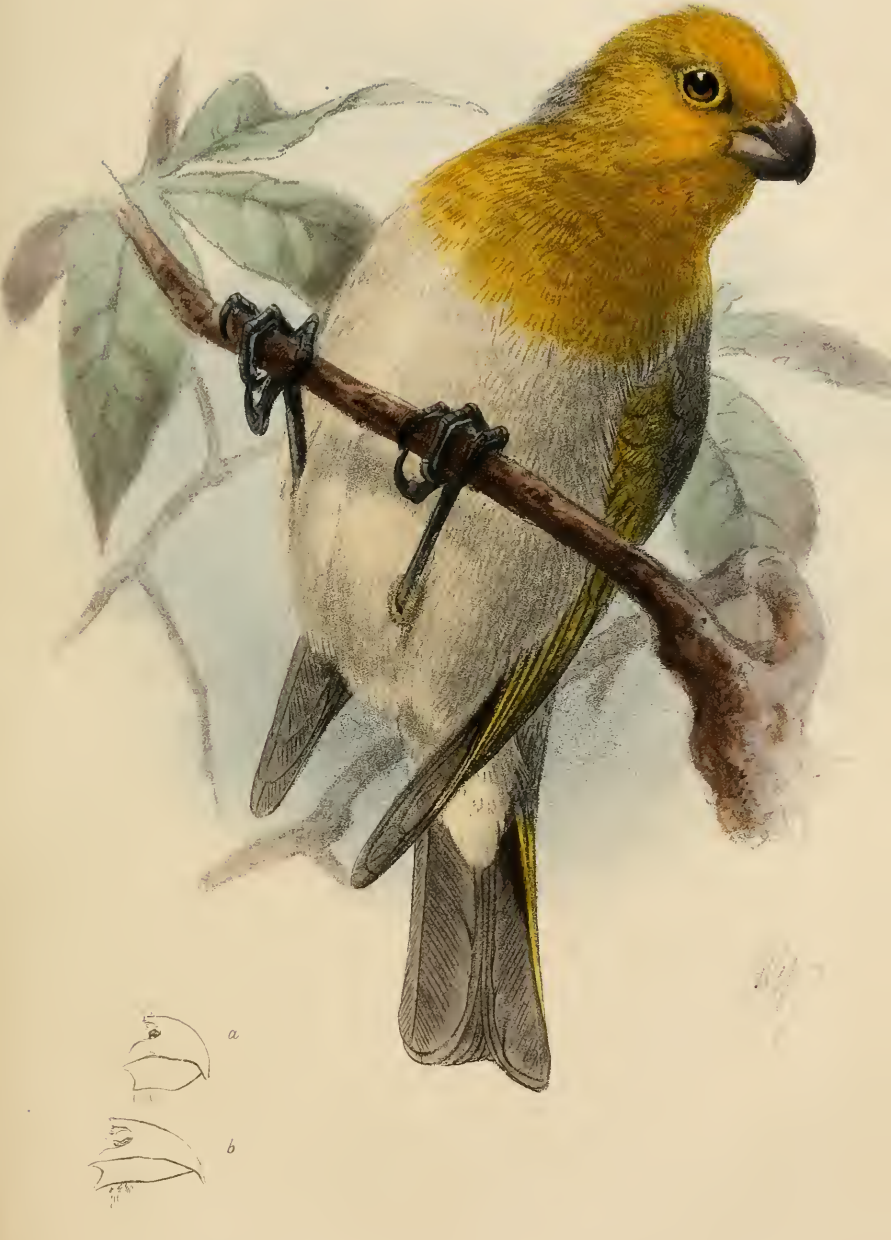
* Ibis, 1878, p. 376.



J.G.Keulemans lith

Hanhart imp

LOXIOIDES BAILLEUI.

AMERICAN MUSEUM
CENTRAL PARK,
NEW YORK,
OF NATURAL HISTORY.

gence, that of the newly discovered form being considerably shorter and much more swollen laterally than that of *Psittirostra.* This, and the differences in the feet, may justify the separation of the two forms into two genera; but there cannot be the slightest doubt that they are very nearly allied together, and must be placed next to one another in the system.

M. Oustalet places *Loxioides* "near the Finches and *Paradoxornis.*" But *Paradoxornis* has, I believe, no near relationship to the Finches. And I adhere to my previously expressed sentiment*, that in all probability *Psittirostra,* and with it *Loxioides,* are not really Fringilline genera, but merely abnormal forms of the same type as *Drepanis* and *Hemignathus,* either belonging to or closely allied to the Dicæidæ†. This question, however, can only be satisfactorily determined by an examination of the structure of the tongue and other soft parts.

M. Oustalet kindly informs me that the specimens of *Loxioides bailleni* were obtained in the large island Hawaii or Owhyhee. In the same collection were several examples of *Corvus hawaiensis,* which I had never previously seen in any museum, except in Philadelphia many years ago.

In Dr. Streets's "Contributions to the Natural History of the Hawaiian and Fanning Islands and Lower California," lately published in part 7 of the 'Bulletin of the United-States National Museum,' we have another recent contribution to our knowledge of the fauna of the Sandwich Islands. As regards the class of birds, however, the addition is but small, two species only being mentioned as having been obtained in this locality during the survey with which Dr. Streets was connected. These are *Fulica alai,* and *Gallinula sandvicensis* already described by Dr. Streets in a former number of 'The Ibis' (1877, p. 25). Both these birds were procured in the island of Oahu.

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* *Cf.* Ibis, 1871, p. 360.

† *Mohoa* seems to be a Meliphagine form; but *Drepanis, Hemignathus,* and the other genera (except perhaps *Chætoptila*) in the list given, Ibis, 1871, p. 360, having only nine primaries, should probably be referred to the Dicæidæ.

A third recent addition to our knowledge of the Hawaiian avifauna has been made by the naturalists of the 'Challenger' Expedition, which visited Owhyhee in August 1875, and during their short stay obtained examples of thirteen species of birds*. Most of these were already well known; but one of them (*Anas wyvilliana*) proved to be new to science, and a second an example of the little-known *Buteo solitarius* of Peale, which, through some strange misconception, was referred by Cassin to the genus *Pandion.*

Intercalating these additions into the list, we find that the Hawaiian avifauna, according to our present state of information, may be held to embrace about forty-four species, whereof the following twenty-three are peculiar to the Hawaiian group, namely:—

a. Passeres.

Chasiempis sandvicensis.
Phæornis obscura.
Mohoa nobilis.
—— braccata.
—— apicalis.
Chætoptila angustipluma.
Drepanis pacifica.
—— coccinea.
—— sanguinea.
Drepanis flava.
Hemignathus olivaceus.
—— obscurus.
—— lucidus.
Loxops coccinea.
Loxioides bailleni.
Psittirostra psittacea.
Corvus hawaiensis.

b. Accipitres.

Buteo solitarius.

c. Anseres.

Bernicla sandvicensis.
Anas wyvilliana.

d. Fulicariæ.

Fulica alai.
Gallinula sandvicensis.
Porzana obscura.

VIII.—*Notices of recent Ornithological Publications.*

1. *'Bulletin' of the Nuttall Ornithological Club.*

[Vol. iii. no. 4, October 1878. Cambridge, Mass.]

Our American contemporary continues to prosper, we are pleased to see, and, moreover, appears with most commendable regularity, vol. iii. for last year being now complete. Amongst many interesting papers in the last number, Mr. H. A. Purdie describes the nest and eggs of *Empidonax flaviventris*, and Mr. Osborne continues a note on the same subject; Dr. Elliot Coues gives a "useful hint to egg-collectors;" and the capture of a *fifth* specimen of that *rara avis, Helminthophaga leucobronchialis*, is announced.

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* See P. Z. S. 1878, p. 346.

2. '*Bulletin*' *of the Zoological Society of France.*

[Bulletin de la Société Zoologique de France pour l'année 1877. 2e vol. Paris, 1877.]

The Bulletin of the Zoological Society of France for 1877, which is now complete, contains several important ornithological papers, besides those which we have already noticed from separate copies, namely:—

(1) Barboza du Bocage (J. V.), "Note sur les races géographiques, ou espèces de *Bucorax*" (p. 373).

The three forms *B. abyssinicus, B. guineensis*, and *B. caffer* are accurately distinguished; and Mr. Elliot's lately described *B. pyrrhops* (Ann. N. H. ser. 4, xx. p. 171) is referred to the adult of *B. guineensis*.

(2) Bouvier (A.), "Le Barbican à ventre rose, *Pogonorhynchus Le Vaillantii*" (p. 76).

The supposed new *P. eogaster*, Cab. J. f. O. 1876, p. 92, is shown to be = *P. levaillanti*, Leach (*Barbican à ventre rose* of Lev.), a species confounded by all modern authors with *P. bidentatus*.

(3) Bouvier (A), "Faune ornithologique de Kessang, presqu'île de Malacca, 1re liste" (p. 292).

Gives a list of 31 species, of which specimens have been collected at Kessang (between Malacca and Mount Ophir) by M. Rolland.

(4) Bouvier (A), "Sur une collection ornithologique de l'Uganda, royaume de M'Tesa, Afrique centrale (1er article)," (p. 437).

Contains a list of birds obtained by M. Piaggia in Uganda (the kingdom of Mesa). Of 34 species, one, *Turdus piaggiæ*, allied to *T. gurneyi* and *T. crossleyi*, is described as new.

(5) Lacroix (Ad.), "Le Pic de Sharpe dans le département de la Haute-Garonne" (p. 486).

Records the occurrence of the Spanish form *Gecinus sharpii* near Saint-Martory, Haute-Garonne.

(6) Sharpe (R. B.) et Bouvier (A.), "Études d'ornithologie africaine. Nouvelle liste d'oiseaux recueillis dans la région du Congo, par MM. le D^r Lucan et L. Petit, de septembre 1876 à septembre 1877 (suite)" (p. 470).

Fifty species are enumerated in this first portion of the list. *Lophotriorchis lucani,* described as new, is allied to *L. kieneri* of India. Other rarities obtained are a (second) specimen of *Scotopelia bouvieri,* Sharpe, *Cypselus toulsoni,* Bocage, and *Erythrocercus maccalli,* Cassin.

3. *Godwin-Austen, Birds from the Hill Ranges of the North-east Frontier of India.*

[Sixth List of Birds from the Hill Ranges of the North-east Frontier of India. By Lieut.-Colonel H. H. Godwin-Austen. J. A. S. B. xlvii. pt. ii. p. 12 (1878).]

This list gives the results of two seasons' collecting in the Naga hills by two officers of the Topographical Survey, Mr. A. W. Chennell and Mr. M. T. Ogle, and raises the total number of species obtained during this survey of the North-east Frontier to 585. *Abrornis flavigularis,* from Sadiya, is described as new. Figures are given of *Garrulax nuchalis,* of the Naga hills (pl. x.), and of *Actinura oglei* (pl. xi.), from near Sadiya, both recently described by Col. Godwin-Austen.

4. *Gould's 'Birds of New Guinea.'*

[The Birds of New Guinea and adjacent Papuan Islands, including any new Species that may be discovered in Australia. By John Gould, F.R.S. &c. Parts vi., vii., viii. Folio. London, 1878. Published by the Author, 26 Charlotte Street, Bedford Square, W.C.]

In spite of severe ill health, Mr. Gould continues his great work on the birds of New Guinea. The three parts issued last year contain figures of the following species :—

Part VI.

Tanysiptera nympha.
Artamus maximus.
Artamus insignis.
—— monachus.

Lophorhina superba.
Xanthomelus aureus.
Nasiterna pygmæa.
—— maforensis
—— misoriensis.
Nasiterna bruijni.
—— beccarii.
—— pusio.
—— keiensis.

Part VII.

Tanysiptera nigriceps.
Epimachus speciosus.
Paradigalla carunculata.
Pitta cæruleitorques.
—— maforensis.
—— celebensis.
—— rubrinucha.
Phlogœnas jobiensis.
—— johannæ.
Orthonyx novæ-guineæ.
Cyclopsitta suavissima.
—— melanogenys.
Dicæum eximium.

Part VIII.

Dicranostreptus megarhynchus.
Œdirhinus insolitus.
Astrapia nigra.
Eclectus polychlorus.
Geoffroyius heteroclitus.
Cinnyris maforensis.
Cinnyris mysorensis.
—— sangirensis.
Todopsis cyanocephala.
—— bonapartii.
—— wallacii
—— grayi.

Amongst the many rarities illustrated in these numbers we may call special attention to the beautiful figures of *Paradigalla carunculata*, of which, until quite recently, two imperfect specimens only were known, to the novelties discovered by Mr. Brown, *Tanysiptera nigriceps* and *Phlogœnas johannæ*, and to the series of *Nasiternæ* from different islands.

(5) *Grandidier on a new Owl.*

[Note sur un nouveau Strigidé de Madagascar, par M. Alfred Grandidier. Bull. Soc. Philomath. de Paris, sér. 7, ii. p. 65.]

Describes *Phodilus soumagnei* (=*Heliodilus soumagnei*, A. Milne-Edwards. See Ibis, 1878, p. 196.

6. *Layard on New Birds from Lifu.*

[Descriptions of new Species of Birds from the Island of Lifu, New Caledonia. By E. L. Layard, C.M.G., H.B.M. Consul, Noumea, New Caledonia. Ann. & Mag. Nat. Hist. ser. 5, i. p. 374.]

The species described are *Turdus pritzbueri*, *Pachycephala littayei*, *Zosterops minuta*, *Z. inornata*, and *Erythrura cyanofrons*.

7. *Legge on a new Scops Owl.*

[Description of a new Scops Owl from Ceylon. By Captain W. V. Legge, R.A. Ann. & Mag. Nat. Hist. ser. 5, i. p. 174.]

The species described is *Scops minutus*, distinguished by its small size and dark colour from all other Indian *Scopes*. The type is in the British Museum.

8. *Masters on Birds from Port Darwin.*

[Notes on a Collection of Birds from Port Darwin. By George Masters. *Ibid.* p. 269.]

The collection, formed by Mr. Spalding in the months from May to September 1877, contained examples of 106 species. One is described as new, *Cracticus spaldingi*, allied to *C. quoyi*, but with larger bill and tarsi, and of a rusty-brown hue.

9. *Meyer on a Cassowary from New Guinea.*

[Ueber einen Papuanischen Kasuar im Dresdner Museum. Von A. B. Meyer. Journ. f. Orn. 1878, p. 199.]

Dr. Meyer gives a description of an adult Cassowary in the Dresden Museum, obtained through a dealer. It must be either *C. papuanus*, Rosenb., or *C. westermanni*, Sclater; but it is doubtful whether these supposed species are distinct. The following list of the twelve described species of *Casuarius* is added.

1. *C. galeatus*, ex Ceram.
2. *C. salvadorii*, ex Papua.
3. *C. beccarii*, ex inss. Aroens.
4. *C. australis*, ex Austr. bor.
5. *C. bicarunculatus*, ex inss. Aroens.
6. *C. tricarunculatus*, ex Papua.
7. *C. uniappendiculatus*, ex Pap. occ.
8. *C. occipitalis*, ex Jobi.
9. *C. papuanus*, ex Papua med.
10. *C. westermanni*, ex Papua med.
11. *C. picticollis*, ex Papua occident.
12. *C. bennetti*, ex Nov. Brit.

Of these we believe that Nos. 2 and 3 are probably the same species, as likewise Nos. 9 and 10, and that there are only ten species of Cassowary really distinguishable, the recently described *C. edwardsi*, Oust. (P. Z. S. 1878, p. 389), being apparently the adult of *C. papuanus*.

10. *Nares and Feilden's Voyage to the Polar Sea.*

[Narrative of a Voyage to the Polar Sea during 1875–76 in H.M. Ships 'Alert' and 'Discovery.' By Capt. Sir G. S. Nares, R.N., K.C.B., F.R.S., Commander of the Expedition. With Notes on the Natural History, edited by H. W. Feilden, F.G.S., C.M.Z.S., F.R.G.S., Naturalist to the Expedition. 2 vols. 8vo. London: 1878.]

The ornithological notes in this work are condensed from those which have already appeared in this Journal. The eggs of the Sanderling (*Calidris arenaria*) are figured. The game-list (vol. ii. p. 352) is of interest as showing the comparative numbers of the different birds suitable for food procured by the two vessels.

11. *Oustalet on the Ornithology of the Seychelles.*

[Étude sur la faune ornithologique des îles Seychelles, par M. E. Oustalet. Bull. Soc. Philomath. Paris, 1878, p. 161.]

This memoir is based on the collection made by M. de l'Isle, Naturalist of the French Transit Expedition of 1875, and on a large series of 595 specimens obtained by M. Lantz, Director of the Museum of Réunion, and contains notes on 44 species represented in these two collections. Professor Newton's article (Ibis, 1867, p. 335) gave 43 species, of which some were doubtful. The 14 terrestrial species of the Seychelles are *all* peculiar to the archipelago, namely:—

1. Coracopsis barklyi.
2. Palæornis wardi.
3. Tinnunculus gracilis.
4. Nectarinia dussumieri.
5. Zosterops modesta.
6. —— semiflava.
7. Ellisia sechellensis,
8. Tchitrea corvina.
9. Copsychus sechellarum.
10. Hypsipetes crassirostris.
11. Foudia sechellarum.
12. Funingus pulcherrimus.
13. Turtur picturatus,
14. —— rostratus.

Ellisia sechellensis, Oust., was the only new land-bird discovered by M. Lantz.

12. *Oustalet on the Female of* Pitta ellioti.

[Description de la femelle de la *Pitta ellioti*. Bull. Soc. Philomath. Paris, 1878, p. 206.]

Describes the female of *Pitta ellioti*, Oust. (Arch. d. Mus. vol. x. Bull. p. 101), from Camboja.

13. *Oustalet on South-American Pelicans.*

[Notice sur quelques Pélicans nouveaux ou peu connus de l'Amérique méridionale. Bull. Soc. Philomath. Paris, 1878, p. 208.]

Describes a Pelican from Ancon, in Peru, presented to the Paris Museum by M. Barbier, points out its difference from *P. molinæ*, and proposes for it the name *P. barbieri*, in case it should prove really distinct.

[Through Mr. Howard Saunders's kindness I have recently obtained a specimen of a Pelican from Iquique, in Peru, exactly answering to Dr. Oustalet's bird. I have no doubt that it is an adult example of *P. molinæ*.—O. S.]

14. *Owen on the Extinct Birds of New Zealand.*

[Memoirs on the Extinct Wingless Birds of New Zealand; with an Appendix on those of England, Australia, Newfoundland, Mauritius, and Rodriguez. By Richard Owen, C.B., F.R.S. 2 vols. 4to. London: 1879.]

This is a collection, in two volumes (one containing the letterpress, pp. 512, and the other the plates, 130), of the well-known memoirs that have appeared in the 'Transactions' of the Zoological Society of London from time to time since the year 1843. They treat principally of the various species of *Dinornis*; but those which relate to the kindred subjects of *Dromornis*, *Notornis*, *Didus*, and *Pezophaps* are also included.

15. *Ramsay on* Edoliosoma schisticeps.

[Description of a new Species of *Edoliosoma* from New Ireland, supposed to be the adult of *Ceblepyris schisticeps* (Hombr. et Jacq.). Proc. Linn. Soc. N. S. Wales, iii. p. 222.]

Gives descriptions of male, female, and young of this species from specimens in the Australian Museum, obtained at Duke-of-York Island by Rev. G. Brown and Mr. Cockerell.

16. *Ramsay on a new* Pachycephala.

[Description of a new Species of *Pachycephala* from the Gulf of Carpentaria. By E. P. Ramsay. *Ibid.* p. 224.]

The "new species" is *P. pallida*, nearly allied to *P. falcata* of Gould.

17. *Ramsay on a new* Ianthœnas.

[Description of a new Species of *Ianthœnas* from Duke-of-York Island. By E. P. Ramsay. *Ibid.* p. 248.]

Describes *I. pallidiceps*, like *I. metallica*, but having "the whole head and throat white."

18. *Ramsay on Birds from the New Hebrides.*

[Descriptions of three Species of Birds from the New Hebrides. By E. P. Ramsay. *Ibid.* p. 286.]

The species described are *Macropygia mackinlayi*, from the island of Tanna, *M. rufa*, from Sandwich Island, and *Chalcophaps chrysochlora*, var. *sandwichensis*, from the same island, from a collection made by Dr. Mackinlay during a recent visit to the New Hebrides.

19. *Reichenow on Foreign Cage-birds.*

[Vogelbilder aus fernen Zonen. Atlas der bei uns eingeführten ausländischen Vögel, mit erläuterndem Text. Allen Naturfreunden, insbesondere den Liebhabern ausländischer Stubenvögel und Besuchern zoologischer Gärten, gewidmet von Dr. Ant. Reichenow. Folio. Cassel: 1878.]

Of this illustrated work, the commencement of which was announced in our last number*, we have received the first part. It contains three plates, each with several figures of Parrots, and accompanying letterpress. The first two plates are devoted to American, the third to Australian species. The figures, although much reduced in size, are well coloured, and enable the specific characters to be recognized.

20. *Russ on Foreign Cage-birds.*

[Die fremdländischen Stubenvögel, ihre Naturgeschichte, Pflege und Zucht. Von Dr. Karl Russ. 8vo. Hannover: 1879.]

The first volume of Dr. Russ's exhaustive work on this subject is devoted to frugivorous birds, *i. e.* Fringillidæ, Ploceidæ, Alaudidæ, and Tanagridæ. An account is given of the numerous species of these families that have been introduced as cage-birds, including a description of the plumage, and details as to their history, habitat, and treatment in captivity. The second volume will contain the insectivorous groups, and the third the Parrots. The work will be most useful, when complete, to the numerous keepers of cage-birds. Fourteen colour-printed plates illustrate 72 species.

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* Ibis, 1878, p. 492.

21. *Russ on a new Parrot.*

[Eine wahrscheinlich bisher noch nicht beschriebene Papageienart. Von Dr. Carl Russ. Die gefiederte Welt, Jahrg. vii. p. 359 (29. Aug. 1878.]

Of six young Parrakeets of the genus *Palæornis* bought by Dr. Bodinus at the Antwerp sale in 1875, two came into Dr. Russ's collection. These have now attained maturity, and, though allied to the Blossom-headed Parrakeet (*P. cyanocephalus*), are regarded by Dr. Russ as belonging to an allied species, distinguishable both in the mature and immature dress, which Dr. Russ proposes to call *P. bodini*. The size is smaller; the sea-green neck-band is wanting; and the middle tail-feathers are not blue, but green. But is not this *P. rosa* (Bodd.)? *Cf.* Reichenow, Orn. Centrabl. iii. p. 182 (no. 23).

22. *Salvadori on new Species of* Rectes.

[Osservazioni intorno alla supposta identità specifica della *Rectes cirrhocephala* (Less.) e della *Rectes dichroa*, Bp., e descrizione di due nuove specie del genere *Rectes*, Rchb., per Tommaso Salvadori. Ann. Mus. Genov. xii. p. 471.]

The author shows, in opposition to the views of Dr. Meyer and Mr. Sharpe (Cat. B. iii. p. 284) that *Rectes dichrous* is not the adult form of *R. cirrhocephala* (lege *cirrocephalus*), but a distinct species. *Rectes decipiens* is proposed as the name for an intermediate form, from the southern shores of the Bay of Geelvink; and *R. holerythrus*, from Jobi (allied to *R. ferrugineus*), is described as new.

23. *Saunders on the Distribution of the* Laridæ.

[On the Geographical Distribution of the Gulls and Terns (Laridæ). By Howard Saunders, F.L.S., F.Z.S. Journ. Linn. Soc. (Zoology) xiv. p. 390.]

In this essay Mr. Howard Saunders enters at some length into the geographical distribution of the Laridæ, of which about 109 species are recognized as distinct. Mr. Saunders takes each species in order, and gives a short account of its range. Some general remarks are added at the close, in which the conclusion is arrived at that the north Pacific is probably the "centre of dispersal" of the group. Mr. Saunders will pardon us for remarking that "Rhynchopinæ," not "Rhynchopsinæ," is the correct Latin derivative of "Rhynchops."

24. '*Stray Feathers,*' Vol. vi.

[Stray Feathers: a Journal of Ornithology for India and its Dependencies. Edited by Allan Hume. Vol. vi. Calcutta: 1878.]

Mr. Hume has devoted the whole of his sixth volume (524 pp.) to a "Revised List of the Birds of Tenasserim," prepared by himself from the notes of Mr. W. Davison, who, as we all know, has devoted for several years great attention to this subject, and has, as we are informed, collected upwards of 8000 specimens. The memoir is a most valuable one, Tenasserim having been previously one of the ornithologically least-known portions of British India. The list includes altogether 721 species, of which 580 have been obtained by Mr. Davison or by other correspondents of Mr. Hume. Mr. Davison's numerous field-notes are indicated by his initials attached. Mr. Hume gives descriptions of all the species not included in Jerdon's 'Birds of India,' and critical remarks on synonymy, distribution, and other points.

A new genus (*Turdinulus*) is instituted (p. 235) for *Pnoepyga roberti* of Godwin-Austen and Walden (Ibis, 1875, p. 252).

As regards the remarks which Mr. Hume has been pleased to make (p. 278) on the Editors of this Journal, we have only to say that we took some trouble to do our best, in the matter referred to, to meet Mr. Hume's wishes, and much regret that he is not satisfied. Colonel Godwin-Austen is one of our leading authorities on Indian birds; and as the types to be compared were in his collection, it was not only natural, but even necessary to consult him on the subject. As regards the much-vexed question of *Pellorneum tickelli*, we have given our unbiased and independent opinion, founded on our own personal comparison, viz. that "it is impossible" to decide the case from the descriptions, but that the *size* of the specimens seems to favour Mr. Hume's views. After this, it is a little hard that Mr. Hume should complain of his referees not having delivered judgment.

25. *Taczanowski on the Birds of Poland.*

[Liste des Vertébrés de Pologne, par L. Taczanowski. Bull. Soc. Zool. de France, 1877, p. 121.]

M. Taczanowski enumerates 304 species of birds in his list, and gives notes on the times and seasons of their occurrence. In his preliminary remarks is given an account of the previous literature on the subject.

IX.—*Letters, Announcements, &c.*

We have received the following letters, addressed to the Editors of 'The Ibis:'—

Heligoland, September 28th, 1878.

Sirs,—It gives me much pleasure to inform you that the occurrence here of *Larus affinis* has very soon been followed by another still more interesting addition to the ornis of Heligoland, in the capture of a fine specimen of a *Phylloscopus* (shot here on the 25th inst. by my eldest son) greatly resembling *P. fuscatus*, but of a coloration tending more to greyish than buffish brown, the dark colour of the upper parts extending all round the fore part of the breast, or craw, as we describe it in German ornithological phraseology.

With the aid of Mr. Seebohm's paper on the *Phylloscopi* (Ibis, 1877, p. 66), I have been enabled to identify the above bird, *P. viridanus* being the only one of his eight *Acanthopneustæ* without the mesial line that it could be referred to, although the bill of my specimen is not to be called "*large*," being, in fact, not larger than that of *P. trochilus*. In all other measurements, however, in the colour of the upper and underparts, the superciliary streak, distinctness of lower wing-bar, combined with the total absence of the upper one, "pale greenish plumbeous" legs (which I had marked down as olive-grey), as in the relative proportions of the primaries, it fully agrees with the description given by Mr. Seebohm of *P. viridanus*.

Judging from what is said in the same paper as regards *P. plumbeitarsus*, it appears that this species resembles *P. viridanus* very closely indeed; but the "*lead-colour*" of the legs, together with the "*generally distinct*" upper wing-bar of the former, induced me to decide in favour of *P. viridanus* as a name for my bird. Perhaps there may exist a sufficient difference in the shape of wing between these closely allied species, although in both of them the second and seventh primaries are of nearly the same length as are the third, fourth, and fifth; still, with this seeming sameness, the distance from the tip of the bastard primary to that of the three longest primaries, and from those again to the longest tertiary, may differ so essentially as, when placing both species side by side, to make their dissimilarity apparent at a glance. Unfortunately I am not in possession of materials to decide this question.

As perhaps some members of the ornithological brotherhood may be rather surprised at the statement that this small island should be visited by two different species on the same day, both belonging to the far east of Asia, I beg to state that, for instance, a *Phylloscopus nitidus* was also shot by my son whilst searching for a *P. superciliosus* seen here the same day, that another time *Turdus varius* was captured the same day with *two P. superciliosus,* and again this latter Willow-Warbler together with an *Emberiza pusilla,* as also with an *E. rustica.* On the 1st of October, 1869, examples of *Turdus varius, P. superciliosus, E. pusilla, Anthus cervinus,* together with three of *Muscicapa parva,* were either seen or shot here, followed the next day by a *Turdus swainsoni,* which latter bird, under the circumstances, decidedly made its journey hither across Asia.

Of more south-eastern species, I have obtained here on the same day *Charadrius fulvus* and *Emberiza melanocephala*, at another time *Acrocephalus agricola* together with *Ruticilla mesoleuca*, and, again, *Falco rufipes* along with *Alauda brachydactyla*, as also *Sturnus roseus* along with *E. melanocephala*.

Instances of this description I could easily multiply to a very great extent; the above will, however, be sufficient to show that such so-called stray birds do not, as a general rule, consist of silly young individuals roaming about at random, but there is system in their apparently irrational wanderings, though we may not be able to divine the motives—a supposition supported by the fact that, along with the change of direction such birds are proceeding from, there is also a fixed difference of season at which they do appear.

Yours &c.,
H. Gätke.

Aldershot, October 24, 1878.

Sirs,—A slight error appears in the biographical memoir of the late Mr. Edward Adams, published along with his list of the birds of Michalaski (*vide* Ibis, 1878, p. 421).

During the years 1848–49 the 'Investigator,' forming part of the expedition under Sir James Ross, was commanded by Captain Bird, and not by Captain M'Clure.

Yours &c.,
H. W. Feilden.

Sirs.—Allow me a few remarks on several notices of my papers published by you in the last number of 'The Ibis' (1878, pp. 479–483).

Lanius antinorii, Salvad. (Ann. Mus. Civ. Gen. xii., 25 Maggio 1878), looks like *L. pallidirostris*, Cass., when on the wing, but not otherwise; I think that very likely it is the same bird which has been lately described by Cabanis under the name of *Lanius* (*Fiscus*) *dorsalis* ('Journal für Ornithologie,' April 1878, p. 205). But which name has the priority? If you look at the dates printed on the papers you would say Cabanis. But I may as well remark that the April number of the

'Journal für Ornithologie' for this year did not reach *me* till the 7th of September; and I should like to hear what was the *real* date of its appearance. Once before it was noticed in 'The Ibis' (1877, p. 239, note) that the number containing "Ornithological Results of the 'Gazelle' Expedition," although dated July 1876, was not issued to the subscribers until January 1877! I think that such a proceeding is very objectionable.

In the notice of my paper "On Certain Cassowaries," there is a passage not quite exact. You say that I "now doubt whether Cassowary No. 2, from Warbusi, is really identical with No. 1, from Wandammen, *i. e.* whether *C. altijugus* really = *C. salvadorii*, *i. e.* if the localities are rightly assigned."

In my paper I have written nothing of the kind. On the contrary, acknowledging the identity of *C. altijugus* and *C. salvadorii*, I have only expressed my doubts whether *C. salvadorii* is really from Warbusi, a locality whence we know certainly that *C. tricarunculatus* comes. I have added that probably the tickets of the two specimens referred to *C. salvadorii* and to *C. tricarunculatus* have been exchanged, so that the ticket of *C. salvadorii*, on which was written "Warbusi," most likely belonged to *C. tricarunculatus*, and to *C. salvadorii* belonged the one attached to *C. tricarunculatus*, on which was simply written "Nouvelle Guinée, 1876." On this supposition the specimen of *C. tricarunculatus* sold to Count Turati by Laglaize would be from Warbusi, as the type specimen was, and *C. salvadorii*, with the ticket "Nouvelle Guinée, 1876," might possibly be from Wandammen, like the specimen originally named *C. altijugus*.

I wish to mention that in the same paper of mine on Cassowaries (p. 4, or 422 of the volume, line 20), I have wrongly quoted "Ann. Mus. Civ. Gen. vii. p. 717, note, 1877," instead of "Sclater, Ibis, 1877, p. 372, note."

It should be understood that my name *Chalcopsittacus bruijni* has no priority over *C. insignis*, Oust., bestowed one week before mine. Might not this bird possibly be the long-lost *Psittacus stavorini*, Less., Voy. Coq. Zool. i. p. 355, most likely described from memory?

In the footnote to the notice of my paper on the Birds from Tarawai, there is one thing wrong. *Chenorhamphus cyanopectus*, Oust. (=*Todopsis grayi*, Wall.=*Myiagra glauca*, Schleg.), was not described from Tarawai, but from Amberpon. M. Oustalet admits now the identity asserted by me. Possibly the genus *Chenorhamphus* will have to stand.

I take this opportunity to mention that M. Oustalet's recently described *Pachycephala squalida* (*conf.* Ibis, 1878, p. 376) is a young bird of *P. griseiceps*, Gray. M. Oustalet has kindly compared, at my request, his bird with two specimens which I had compared with Gray's type in the British Museum.

One of my objects when last year in Paris was to identify *Trerolæma leclancheri*, Bp.; and Mr. Elliot was with me when I found out that it was the same as *Leucotreron gironieri*. I am glad to hear that he is of opinion that I was right.

As to *Hermotimia corinna*, from the Duke-of-York Island, I think that anybody who will look at a series of it in comparison with a series of *H. aspasia* will agree with me that they certainly differ. The male has the throat, not purple, more or less shining steel-blue, like the male of *H. aspasia*, but pure steel-blue, like the male of *H. aspasioides*, from Amboina, a species generally admitted, although it differs from *H. aspasia* less than my *H. corinna*; besides, the female of this differs from those of *H. aspasioides* and *H. aspasia*, which have the underparts greenish, by having the same parts decidedly yellowish, and the throat much lighter. If differences so conspicuous and so constant as these are to be represented by names, I think that *H. corinna* will have to stand.

Yours truly,
T. SALVADORI.

Turin, October 28th, 1878.
Zoological Museum.

Sirs,—We have to chronicle, since we last wrote, the addition of three birds to the ornithology of New Caledonia. This time they are, we think, known species; at least we identify them as such.

When we first came to Noumea we at once detected that among the common Swiftlets that fly about the outskirts of the town there occasionally appears a smaller and a brighter-coloured bird. We identified the former (on the wing) with *Collocalia spodiopygia* of Fiji, which it exactly resembled; but lately, having obtained specimens, we saw at once that they differed from it in being much brighter-coloured, and not so smoky on the underparts and rump-patch. They are also somewhat larger, the wing being half an inch longer. This bird we now believe to be *C. leucopygia*, Wall.

What, then, were the white-bellied ones? They had then disappeared; but having again come to the front, we have lately shot some of them, and find that they accord exactly with Gray's figure and description in the 'Voyage of the Curaçoa' of *C. uropygialis*. Gray says "this bird has hitherto only been obtained in the New Hebrides (Aneiteum)." The distance is not very great, and a mere bagatelle to a bird of such power of wing as a Swift. We find that though they occasionally hawk after small insects in company with the other species, they in general keep more to the edge of the forest, and among the scattered gum-trees. We fancy that they must be migratory, as during the summer months we did not observe them; they are now (May) pretty numerous, but local.

Leopold Layard has started a canoe, there being no recreation here but "drinking-bars," billiards, and gambling; and one evening, returning from a cruise to some islands off Ansevata, he reported that he had found *Charadrius fulvus* breeding on a small sand-patch, the parent bird being followed by a pair of downy chicks, and that he had seen a flock of very minute Terns, which were quite new to him.

Next day he went after them with his gun, and returned with a specimen (the only one then to be found) of *Sternula nereis*, Gould, a female, with the head speckled. This, as far as we can make out, is the first time this species has been recorded from here.

Our last prize is another visitant from the Australian continent, a magnificent example of what we make out to be a female *Falco melanogenys*, Gould. This powerful Falcon was killed at the Government penal farm, "Yahoué," by the superintendent, who is on the look-out for Hawks and such like for us, the slaying of these being permitted by the colonial authorities. It weighed just 2 lb. Length (in the flesh, of course) 17″, wing 12″ 6‴, tail 7″ 9‴, tarse 2″ 2‴, girth round middle of thigh 3″ 6‴. These measurements slightly exceed those given by Mr. Sharpe of a female in his 'Catalogue,' but we feel sure that our bird must be assigned to that species, of which this is the first recorded capture from here.

This part of the country has yielded us two other Hawks, viz. a splendid adult female of *Accipiter haplochrous*, Sclater (Ibis, 1859, p. 275, pl. viii), and a young one in the mottled plumage—also two specimens of *Haliastur sphenurus* (Vieill.), a species which apparently does not confine itself to a fish diet, but preys on the farmers' chickens, the remains of which we found in their crops!

Leopold Layard is just leaving for a visit to the New Hebrides, where he will remain about three months, visiting the different islands where there are plantations and cobra (or bèche-de-mer) fishing-stations. His spare time he will devote to ornithology, having taken with him a collecting-gun (20 bore, left barrel on the new choke principle), manufactured expressly for the purpose by a well-known brother of the "Ibis." We hope to report further of this weapon as a "collecting-gun;" meanwhile we cannot help alluding to an exploit of our old favourite, "Long Tom," the shooting of which is wonderfully improved by the use, over the powder, of some very thick, elastic, felt wadding, lately sent us. We are using $\frac{1}{4}$ drm. of powder and $\frac{1}{8}$ oz. of shot, and have fired about forty shots without one miss! Forty birds for 5 oz. of shot and 10 drms. of powder!!

E. L. & L. C. Layard.

Noumea, New Caledonia,
July 6th, 1878.

Sirs,—The past month must be marked with a "white stone" in our journal of collecting in New Caledonia! We have added no less than three species to our collection, one of them being, I fancy, a very scarce one. Not so scarce as *Megalurulus mariæ,* however, as the solitary specimen of that bird sent home by us some time since (*cf.* Ibis, 1877, p. 360) still remains unique, as far as we are concerned. Probably we have not yet hit upon its chief habitat, which we suppose, from the specimen seen by L. L. while crossing the great central mountain-chain, to be somewhere in the interior.

The acquisition of a horse and carriage has enabled us to extend our collecting peregrinations to a greater distance, and to reach some of the pine forests clothing the ravines of Mount Kouyé. Our first prizes were three (one male and two females) specimens of that very beautiful and peculiar green Dove,

Lamprotreron holosericea, Temm.,

(♂ ♀, bill very dark green, legs and feet very dark pink, iris crimson; length, ♂, 11″ 9‴, wing 6″ 6‴, tail 4″, tarse 1″ 2‴), which we shot near Mr. Strokarck's house, in the Dombea road. Small yellow berries were in the throat of one of the specimens secured (June 13, 1878); the other two had in their crops round blue berries, a couple of inches in diameter, swallowed whole. They appear to be stupid birds, not easily alarmed. At one L. L. snapt his gun three times, then extracted his cartridge and inserted another, the bird sitting still on the tree above him all the while. A second he fired at and slightly wounded, with the ⅛-of-an-ounce charge of dust-shot in "Long Tom." It flew about fifty yards into some other trees; and after two or three ineffectual "stalks," he got within range again and shot it.

We are informed that in the interior these Doves are not uncommon. The natives call them "Anez," and declare they breed in holes of large trees.

Our next prize is *Cyanorhamphus saisseti,* Verr., of which we were fortunate enough to secure a pair, male and female.

The male is again the largest, being in length 12″, the female 10½″ (all measurements taken "in the flesh," of course). They were killed by L. L. in dense forest. After procuring the first, its mate kept calling round till it afforded a shot, which secured it. It closely resembles *Platycercus novæ-zealandiæ*, Sparrm., of Hutton's 'Catalogue of the Birds of New Zealand;' but on comparing it with specimens received from that gentleman, it is at once seen to be larger, has a *yellower* green on the underside of the body, a *bluer* tinge on the upperside of the tail-feathers; and these last are *rounded* at the ends, not *pointed*, as in the former.

And now, last and least in point of size, but first in merit, a pair (male and female) of that singular bird the *Clytorhynchus pachycephaloides*, of D. G. Elliot (P. Z. S. 1870, p. 242, pl. xix.). These we found along the banks of a small stream in the forest, the first creeping about some dense lianes, the other in a more open place; a third was seen and wounded, but escaped. L. L. watched this last for some time. It had all the manners of a *Rhipidura*, and was, indeed, in the distance, mistaken for *R. verreauxi*; but a nearer approach dispelled the illusion. It was very restless in its movements, incessantly darting at its insect prey (minute Coleoptera) on the underside of leaves and branches, elevating and expanding its tail, at which times the white tip was conspicuously visible.

Our specimens differ somewhat from the type described by Mr. Elliot: both are larger; we give the dimensions:—

♂. Total length 7″ 6‴, wing 3″ 9‴, tail 3″ 9‴, tarse 10‴, bill 13‴.
♀. „ 7″ 3‴, „ 3″ 5‴, „ 3″ 8‴, „ 10‴, „ 13‴.

Then, again, only *two*, instead of *four*, central tail-feathers are immaculate, the others being all more or less tipped with white, which in the female is tinted with isabella-colour. The colours of the soft parts, taken just after death, were as follows:—♂. Bill pale bluish white (like that of *Artamus*, but paler); this darkened into dark silver-grey, with a white tip, in dying; legs and feet silver-grey, soles yellow, claws white; iris dark drab. ♀. Bill horn-coloured, with the base of lower mandible, tip, and edges pale; gape yellow; the rest as in the male. The bill, from the peculiar conformation of the lower mandible, shows a decided inclination to "gape," as in *Anastomus*. We think that Mr. Elliot might have selected a more appropriate name for this singular bird. It is not like any *Pachycephala* with which we are acquainted! If he had called it *myiolestoides*, it would have expressed its likeness much better, and been three letters shorter!! It is exactly like a *Myiolestes* in shape and coloration, and, but for the bill, would be taken for one when in the hand*.

E. L. L. & L. L.

Bremen, October 18, 1878.

Sirs,—As a supplement to the note of Mr. H. Gätke (Ibis, 1878, p. 489), on the capture of a specimen of *Larus affinis*, Reinh., on Heligoland, I beg leave to record two more cases of the occurrence of this species in Europe. When in Leiden last June, I took occasion to compare my specimens of Gulls from Siberia with those in the Museum. In the extensive series of *Larus argentatus* at Leiden I found a specimen labelled "*Larus argentatus*, 16 November 1863, Tajo, Lissabon," which belongs undoubtedly to *L. affinis*, although it is a young bird, with blackish bill (yellow at the base and tip). A second specimen, shot by Herr F. A. Verstor, 14 August 1874, at Katwijk, near Leiden, labelled also "*L. argentatus*," belongs also to *L. affinis*. It is likewise a young bird, with black primaries and tail-feathers (the latter barred at their bases with white), but in process of change to full dress. The dark colour of the back is always a distinguishing mark of this species, of the identity of which there cannot be the slightest doubt, as, by the kindness of Professor Reinhardt, I was enabled to compare his type with my Siberian specimens. In reference to the distribution of this species, let me add that a specimen from Kamchatka in the Leiden Museum ("*L. occidentalis*, Schleg. Cat. No. 1, from Brandt,

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* Mr. Cockerell, the zoological collector, now here on his way to the Solomon Islands, on being shown this bird by us, exclaimed, "Why I shot that in Fiji!" He was thinking of *Myiolestes vitiensis*.

s. n. *borealis,* Br."), and another from Macao ("*L. occidentalis,* Schleg. Cat. No. 2"), also belong to *L. affinis,* Reinh.

Yours &c.,
Otto Finsch.

Cardney, Dunkeld, Perthshire,
July 11th, 1878.

Sirs,—I was extremely interested to see Mr. Dalgleish's letter in the last volume of 'The Ibis' (p. 382) mentioning the recent occurrence of three specimens of the Stockdove, *Columba œnas,* in this and the neighbouring county, as I have been for the last month watching a pair of these birds breeding on a rocky hill, called Craigmore, at the back of this house, and was preparing to send a note to you recording the fact. The nest is placed in a hole in a cleft in the rock, about a yard from the entrance, well concealed by overhanging heather; and I only found it out by noticing the way in which the ground was beaten by the old birds going in and out. There are two young birds in it, that were hatched on the 27th June, and are now (July 11th) nearly fledged. I intend trying to rear one of these, and shall leave the old birds unmolested, in hopes they may return another year. There can be little doubt that the pair recorded by Mr. Dalgleish would have bred if they had been left alone. I think there is every probability that the pair here have already brought out a brood, as my keeper has noticed them about the hill for the last three months.

Yours &c.,
A. B. Brooke.

Boston, November 16th, 1878.

Sirs,—I notice that you cite Mr. Ridgway's authority for the presence of *Podiceps cristatus* in Franklin Lake (Rep. Geol. Survey 40th Parallel, p. 642) as suggesting that my "verdict may require reconsideration."

All things in ornithology are possible; and negative opinions are ever reversible. Nevertheless the fact still stands, that *no specimen of* Podiceps cristatus *is known to have been ever taken in North America!* Mr. Ridgway, eleven years ago, saw what he then supposed to be this bird; but no specimens were procured, and subsequent explorations have failed to confirm his hypothesis. He saw birds that may have been *P. cornutus*, or *P. occidentalis*, or *P. clarki*, or *P. griseigena*; but, in the universal absence of *P. cristatus*, there is now no reason for believing that they were what he then supposed. Audubon tells us how common was *P. cristatus* on our western rivers; but now-a-days no one finds it there, only *P. griseigena*. Dr. Coues cites *P. cristatus* in his 'Birds of the North-west;' but he now concedes that it is not known to be North-American. And even my very accurate and careful friend Mr. C. Hart Merrian, in his admirable 'Review of the Birds of Connecticut,' published less than a year ago, gives this bird as a resident in "the land of wooden nutmegs," on the authority of such usually reliable gentlemen as W. W. Coe, J. H. Sage, and Dr. Wood, and of some eight (alleged) examples. Upon my calling his attention to the doubt, Mr. Merrian "reconsidered" his opinion, having ascertained that, without exception, they were all examples of immature *P. griseigena*. And this has been my universal experience. In every instance where specimens have been taken they prove to be not *P. cristatus*. When the genuine article is forthcoming, I shall be ready enough to "reconsider my verdict;" but till then I prefer to believe that its presence in any part of America is "not proven."

Yours &c.,

T. M. Brewer.

Habits of Trogon surucura.—The following notes on a Brazilian *Trogon* are extracted from Mr. T. P. Bigg-Wither's interesting work lately published*. Skins kindly submitted to us by Mr. Bigg-Wither have enabled us to identify the species as *Trogon surucura*, Vieillot.

"The habits of the *Suruquá* are peculiar. Their principal food consists of butterflies and other soft-bodied flying insects; and the only time when they exhibit any activity is when in pursuit of their prey. At all other times they sit motionless on some bough or branch of a tree, generally about thirty feet above the ground. The report of a gun will not cause them to do more than turn their head; and I have on more than one occasion shot the one bird, while its mate has remained sitting on the same tree half a dozen yards off, quietly looking on."

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* Pioneering in South Brazil: Three Years of Forest and Prairie Life in the Province of Parana. By Thomas P. Bigg-Wither. Two vols. London (Murray): 1878.

"The sound of our axes seemed to have an especial attraction for the *Suruquá*. Frequently while some tree has been trembling on its throne under the powerful blows of the axe, one of these birds has come flying hurriedly up, and settled itself comfortably on one of the branches of the tottering monarch, as though it had been fleeing from some pursuer, and had now reached a haven of safety. I think possibly the vibration of the leaves under the blows of the axe upon the trunk deceives it into imagining that butterflies are fluttering about round the tree; hence its haste to come and inspect it. Certainly the bird seems silly and stupid enough for any thing."

Dr. Finsch's Expedition.—In company with Capt. Henry Sengstake, who took a prominent part in the German Arctic Expedition of 1868 and 1870, and who has recently returned from the west coast of America, Dr. Otto Finsch, the well-known ornithologist of Bremen, contemplates undertaking a scientific voyage among the islands of the North Pacific. His attention will be directed more particularly to his own branch of science, while his companion will study the geography and hydrography of the places visited. Dr. Finsch is assisted in the matter by the Academy of Sciences at Berlin; but he hopes to obtain additional aid from other sources, so as to enable him to charter a vessel, and thus be more independent in his movements. Should his hopes be realized, he proposes to visit more especially the Caroline archipelago or New Philippines, the Ladrones or Marianne Islands, and the Bonin or Arzobispo group, about many of the islands of which next to nothing is known. Dr. Finsch thinks, and not without reason, that much may be done for science in all its branches in this part of the world, and that, looking at the matter from a geographer's stand-point, time will be profitably spent in preparing maps of the islands and in collecting materials for reports on their products, economic capabilities, and physical condition.—*Academy*, 2nd Nov. 1878.

A new form of Certhiidæ.—Prof. Barboza du Bocage has kindly lent me for examination a skin of the very curious new form of Certhiidæ, from Angola, which he has lately characterized as *Hylypsornis salvadorii*[*]. Although the form comes very near *Salpornis* of the Himalayas in general appearance and structure, I think *Hylypsornis* may stand as a good genus, on account of its shorter bill and feebler feet, the middle toe being especially shorter. I cannot compare the wing-structure, the skin being that of a bird in moult. The discovery of this form in Angola (Certhiidæ being hitherto unknown in the Æthiopian Region) is of the greatest interest.—P. L. S.

Additions to the Collection of Birds in the British Museum in 1877.—The following extract from the Annual Parliamentary Report on the British Museum for 1877[†] is the portion relating to the birds:—

The total number of acquisitions amounts to 1890, of which seventy-three were species entirely new to the collection, and twenty-three typical specimens. The following accessions may be specially mentioned:—

Fifty-four specimens, collected by Captain Feilden during the late Arctic Expedition; presented by the Lords Commissioners of Her Majesty's Treasury.

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[*] Jorn. Acad. Lisboa, no. xxiii. 1878.

[†] British Museum. Account of the Income and Expenditure of the British Museum (Special Trust-Funds) for the Financial Year ended the 31st day of March 1878, and Return of the number of Persons admitted to visit the Museum, together with a Statement of the Progress made in the Arrangement of the Collections and an Account of Objects added to them in the year 1877.

The nest and egg of the Snow-Bunting, and a pair of Knots, with the nestlings, obtained by Captain Feilden in lat. 82° 33′, and presented by the collector.

Forty-four specimens from Turkey, collected by Mr. W. Pearce, of Constantinople; presented by R. B. Sharpe, Esq.

The types of *Podoces biddulphi* and of *Suya obscura*; purchased.

Fifty-three specimens from China; presented by the Shanghai Museum.

Twenty-five birds from the Himalayas and North-western India; collected by Captain T. Biddulph.

The type of *Oreocincla pectoralis* and specimens of *Centropus chlororhynchus* and *Phodilus assimilis* (species new to the collection); presented by Captain Vincent Legge, R.A.

A series of 144 specimens selected from the collection formed by Governor Ussher in Labuan and North-west Borneo, containing the types of *Lobiophasis castaneicaudatus, Pitta ussheri,* and *Cypselus labuanensis*; purchased.

Typical examples of *Corvus annectens* and *Polyplectron schleiermacheri*; received in exchange from the Darmstadt Museum.

Two of the typical specimens of *Rectes jobiensis*; purchased.

Selected series from collections made in New Guinea by Mr. O. C. Stone and the late Dr. James, containing seven new species.

A typical specimen of *Chætorhynchus papuensis*; presented by the Dresden Museum.

Three Cassowaries, including the types of *Casuarius picticollis* and *Casuarius sclateri*; purchased of the Zoological Society.

Thirty specimens of Corvidæ from Australia; presented by the Trustees of the Australian Museum, Sydney.

Fifty-two specimens from various islands of the South Seas; purchased of the Godeffroy Museum.

The fifth portion of the collection of African birds formed by, and formerly in the possession of, Mr. R. B. Sharpe; it consists of 600 specimens, and contains six types and many species previously not represented in the British Museum.

One hundred and fifty-nine specimens from King William's Town; presented by Lieutenant H. Trevelyan.

Thirty-three specimens from the same locality; presented by Lieutenant Anstey.

Twenty Warblers and Chats from the Transvaal; presented by Dr. Henry Exton, of Bloemfontein.

Sixty-nine specimens from Abeokuta, including the type of *Amadina sharpii*; presented by F. Nicholson, Esq.

The Swinhoe Collection.—We are happy to be able to inform our readers that Mr. Seebohm has bought the remainder of the late Mr. Swinhoe's collection. Hitherto the skins have been kept in boxes, a most destructive and reprehensible method for small birds, resulting in the gradual abrasion of their plumage and in the breaking of their necks. They will now be placed in shallow drawers, on the plan adopted by all scientific ornithologists who take a pride in the preservation of their treasures. This still valuable collection will be placed in Tenterden Street, and will be available, as it has hitherto been, to all students interested in Chinese ornithology. Many of Swinhoe's types are unfortunately missing; some have been sold, and others lent and not returned. Some of the most interesting series of birds have also entirely disappeared from the same causes. In the interests of science it is very desirable that this unique collection should be made as complete as possible; and we venture to appeal to the ornithological patriotism of those who may be able to assist in effecting this object, and to ask those who have in their possession borrowed skins to return them to Mr. Seebohm. We have also this gentleman's authority for stating that from those who have purchased from the late Mr. Swinhoe any skins belonging to any of the missing series he is prepared to repurchase them at a handsome profit if they will replace them in the collection, or to give ample exchange either in skins or eggs, which his Siberian and other collections enable him so well to do.

Substantives as Specific Names.—It appears not to be understood by some naturalists that specific names *may be* substantives. Linnæus used many such, *e. g. Turdus merula, Emberiza cirlus,* and *Fringilla spinus,* in each of which cases, will be observed, the specific name is of a different gender from the generic, the two terms being placed in apposition. In the face of this, certain naturalists do not hesitate to violate the plainest rules of Latinity, in order to bring their specific and generic names to the same termination. Not to speak of Mr. Sharpe's *Cerchneis tinnuncula* (!), Mr. Dresser has lately attempted to turn *agricola* into an adjectival form*, not considering that it is a masculine noun, although ending in *a*. Surely no one who has been to school can forget

> "O fortunat*i* nimium sua si bona nôrint
> Agricol*æ*!"

In the new number of 'Stray Feathers,' Mr. Hume, in a similar frame of mind, proposes to convert "*eremita*"—another masculine noun—into an adjective, and tries to persuade us to call our old friend *Fregilus graculus, Graculus eremitus*†.

New British Bird.—An addition has just been made to the British list by a record of the occurrence of the Black-throated Wheatear of Southern Europe (*Saxicola stapazina,* Linn., nec Dresser) in Lancashire. The occurrence of this bird was first stated in an article in 'Science Gossip,' of October 1st, 1878. The specimen in question has since been exhibited at the Meetings of the Zoological Society in November and December last, and unquestionable evidence given as to the authenticity of the occurrence.

The Breeding-places of the Black Stork.—I have been trying, for some time unsuccessfully, to get some Black Storks (*Ciconia nigra*) for the Zoological Society's collection. On turning to Mr. Dresser's 'Birds of Europe' for information as to the nearest breeding-places from which I might obtain young birds, and which I believe to be somewhere in Denmark, I found only the somewhat vague information that it is "not uncommon" there, and "breeds annually at Fredrikslund," and in another passage that it "breeds only seldom, and not regularly, on the islands (?), as, for instance, on Seeland." On reference to Prof. Reinhardt, of Copenhagen, I was, however, favoured with the following information, which, I think, may be acceptable to some of the members of the B. O. U. :—

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* *Acrocephalus agricolus,* Dresser, B. of Eur. pt. 53.

† 'Stray Feathers,' vii. p. 149.

"The Black Stork is not uncommon in Denmark, and breeds in several of the forests in Jutland, but usually only a few pairs, or even a single pair, in each forest.

"There are breeding-places :—

"1. To the north of 'Limfjorden,' in
Baggesvogn-skov, in the neighbourhood of the small town of Hjörring (the most northern breeding-place in Denmark) ;
Dronninglund-storskov, on the estate Dronninglund ;
Stagsted-skov.

"2. On the island 'Oland,' in Limfjorden, in
Oksholm-skov, belonging to the estate of that name.

"3. To the south of Limfjorden, in
Hald-skov and *Aunsbjerg-skou,* not far from Viborg ;
Houlbjerg-skov, on the estates of Count Friis ;
Fusingö-skove, on the estates of Count Scheel-Plessen ;
Mylenberg-skov, some miles from the small town of Hobro ;
Palsgaard-skove, several miles distant from Veile ;
Ronvold-skove, belonging to the estate of Count Rantzau, in the same neighbourhood ;
Store Grundel-skov, also close by Veile ;
Silkeberg-skove, not far from Skandeborg.

"There are, I believe, still more breeding-places in Jutland ; but I suppose that those already mentioned will suffice.

"There is even at least one breeding-place in Seeland, viz. *Mag-leskor,* on the estate Ivenstrup, at the railway station

Borup, about 20 English miles to the south of Copenhagen. In several of these breeding-places the nests are pretty often robbed of their eggs by collectors.

"The Black Stork arrives commonly early in April. Chicks have been found just hatched, together with two eggs, in a nest, as early as the 2nd of May; but I believe this to have been an exceptional case: some ten or twelve days later may be considered the regular time.

I will ask now, Has any member of the B. O. U. ever visited a nesting-place of the Black Stork in any part of Denmark? P. L. S.

Geary's 'Asiatic Turkey.'—Mr. Geary has lately given us a most instructive and interesting account of his ride through Asiatic Turkey from Bagdad to Alexandretta*. But when he comes to ornithological topics Mr. Geary ceases to be accurate; we trust this is not the case in his remarks on more general subjects. "Wild Turkeys," we are gravely informed, "abound in the region between the Tigris and the Persian hills. They are often hunted with Hawks." Mr. Geary thereupon proceeds to argue that "the notion that Turkeys are of purely American origin must be given up!" We would ask, Did Mr. Geary see the "wild Turkeys" on the Tigris? and is he sure they were not Bustards of some species? Is it possible, however, that the Editor of the 'Times of India' does not know the difference between a Turkey and a Bustard? Again, at Kuffree, on his way to Mosul, Mr. Geary "was awoke [*lege* awakened] by the conjugal discussions in progress between two *Cranes,* which had a colossal nest perched on an angle of the surrounding wall." The succeeding paragraphs show beyond all doubt that the bird was no other than a Common Stork, which even a newspaper editor ought not to call a Crane. After this we must recur to the old proverb "Ne sutor ultra crepidam!"

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* Through Asiatic Turkey: Narrative of a Journey from Bombay to the Bosphorus. By Grattan Geary, Editor of 'The Times of India.' London, 1878: Murray.

New Works in Preparation.—The fourth volume of the British-Museum Catalogue of Birds by Mr. Sharpe is now far advanced, and will contain the Campephagidæ, Muscicapidæ, and allied families. Mr. Seebohm, we believe, has undertaken the catalogue of the Sylviidæ and some allied groups; and other specialists are named as likely to assist in the preparation of future volumes; so that, we trust, the somewhat melancholy anticipation which we have previously indulged in as to the epoch of the completion of this great work may be disappointed.

The Stricklandian Curator at Cambridge is devoting himself to a catalogue of the collection under his charge; whilst his co-editor, as will be seen by the announcement inserted next to our cover, has projected a monograph on the Jacamars and Puff-birds, to occupy his spare time.

Obituary of Mr. H. Durnford.—Mr. Henry Durnford, whose unexpected death at Salta, in Bolivia, was announced in the last number of 'The Ibis,' was born and educated at Eton, where his father was for many years a master. His Eton career cannot be said to have been particularly brilliant, though he always managed to hold his own creditably in the school, and laid up a considerable store of general knowledge. The love of animals, which from the days of his earliest childhood was his ruling passion, seemed to increase with years, and his great object as a boy was to surround himself with every sort of living creature he could get hold of.

At the age of 18 he entered a mercantile house in Liverpool. Here he remained for five years. Notwithstanding the nature of his employment, he still managed to find time for his favourite pursuit; and the pages of his diary, portions of which appeared from time to time in the 'Zoologist' (1872, 1873), testify to the ardour with which he devoted himself to natural history.

Ornithology was Henry Durnford's special hobby; and whilst at Liverpool he contrived, under considerable difficulties, to make himself well acquainted with most of our

British birds. Besides thoroughly exploring the neighbourhood of Liverpool in company with a younger brother whose tastes were exactly similar to his own, he at various times made expeditions to all parts of the coast. North Wales, Anglesea, Walney Island, Suffolk, Hampshire, and Hayling Island were all, at one time or another, the scene of an excursion; and on one occasion (the spring of 1874) he extended his travels as far as the North Frisian Islands and the coast of Schleswig ('Ibis,' October 1874, and 'Field,' March 1878).

In 1875, being then 22, he succeeded in obtaining an appointment in a house of business at Buenos Ayres, for which place he set out on February 23rd. Though compelled by force of circumstances to labour at what was, to him, an uncongenial occupation, he did not by any means lose his love of birds; and the numerous letters received at this period point to the vigour with which he pursued his scientific studies in his adopted country. After remaining two and a half years with the same firm, the closing of their Buenos-Ayres branch afforded him an opportunity, of which he gladly availed himself, for severing for ever his connexion with the desk. He boldly determined to devote himself henceforth to natural history, not merely as a pleasant way of occupying his spare time, but as his sole occupation, by which he was determined to gain his livelihood. With the example before him of many who have succeeded in the same line, and undeterred by the still greater number of those who have failed, he set earnestly to work, and in such a way that, had his life been spared, there can be little doubt that he would ultimately have ranked high in the list of naturalists and explorers.

After an expedition, occupying nearly eight months, to the Welsh colony of Chupat, during which he explored a portion of Patagonia hitherto unknown to European travellers (Ibis, October 1878), he set off, accompanied by a muleteer and four mules, on a more extensive expedition to Tucuman, Bolivia, and the Upper Paraguay. The first portion of his journey was most successfully accomplished; and in a letter dated "Rio Pasage, 16th June, 1878," he speaks with the utmost enthusiasm of the beauties of the tropical region on which he was entering, the scenery of which seemed greatly to exceed his expectations. One month later a telegram was received at Buenos Ayres from a gentleman living near to Salta, to whom Henry Durnford had obtained an introduction, stating briefly that the young naturalist committed to his care had breathed his last on an estancia at Campo Santo, at 10 o'clock on the morning of July 13th. A subsequent letter explained that his death had resulted from a sudden attack of heart-disease, the seeds of which had doubtless been sown during a fever which had nearly proved fatal to him at Chupat a few months before.

The first paper communicated to this Journal by Henry Durnford was in 1874, entitled "Ornithological Notes on the North-Frisian Islands and adjacent Coast" (Ibis, 1874, pp. 391–406). In 1876 (pp. 157–166) he commenced his "Ornithological Notes from the Neighbourhood of Buenos Ayres." These were continued in 1877 (pp. 166–203). The same year (pp. 27–46) his "Notes on some Birds observed in the Chupat Valley, Patagonia, and in the neighbouring District" appeared; and, following the same subject, he sent us in 1878 (pp. 389–406) his "Notes on the Birds of Central Patagonia." As these last were passing through the press the tidings of their author's death reached us. All these papers show that Henry Durnford was a keen observer of birds in their wild state; and his collections, which were submitted to us for examination, enabled us to judge of the rapidity and accuracy with which he had accomplished the by no means easy task of mastering the names of the species he met with.

Henry Durnford was elected a Member of the British Ornithologists' Union in 1876.

Death of Dr. Stölker.—From the 'Mittheilungen des ornithologischen Vereines in Wien' for August last, we learn of the death, at the early age of 39, of Dr. Carl Stölker, the distinguished Swiss ornithologist, of St. Fiden, near St. Gall, in Switzerland. Dr. Stölker was the author of several papers in the 'Journal für Ornithologie,' the 'Bulletin' of the Swiss

Ornithological Society, and other periodicals, and appears to have been a most energetic collector of birds and eggs. His collection has been bequeathed to the Natural-History Society of St. Gall.

Death of Mr. G. D. Rowley.—With much regret also we announce the death of Mr. George Dawson Rowley, a Member of this Union since 1864, and a well-known and familiar friend to many of us. Mr. Rowley was the eldest son of the late Mr. George William Rowley, of Priory Hill, in Huntingdon, who, singularly enough, expired on the same day as his son, after a long illness. Mr. Rowley was born in 1822, and was educated at Eton and Cambridge, where he took the degree of B.A. in 1846. Both at school and at the University he was a companion of the late John Wolley, whose early passion for ornithology he shared. Many short contributions from Mr. Rowley's pen have appeared in 'The Field,' 'The Zoologist,' 'The Proceedings of the Zoological Society,' and in this Journal, generally relating either to the natural history of the neighbourhood of Brighton, where he chiefly resided, or to the rarities in birds and eggs acquired for his own collection. But the work by which he will be chiefly known will be his 'Ornithological Miscellany'*, the third and concluding volume of which was brought to a completion just as his fatal illness commenced. Mr. Rowley died at his residence, Chichester House, East Cliff, Brighton, on the 21st of November last.

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* See notices of this work, 'Ibis,' 1875, p. 509; 1877, pp. 122, 243, 378, 481; 1878, pp. 193, 471.

THE IBIS.

FOURTH SERIES.

No. X. APRIL 1879.

X.—*Field-notes on the Birds of Celebes.* By A. B. Meyer, M.D., C.M.Z.S., Director of the Royal Zoological Museum, Dresden. Part II.

[Continued from p. 70.]

Broderipus celebensis, Walden.

Native Malay name, "Burong-guning," *i. e.* "Yellow bird." Alfurous name in the Minahassa, "Kikeliawoi."

Very common. Minahassa, December till July; Limbotto, July; Togian Islands, August.

Iris red; feet bluish grey; claws black; bill rosy. Even the bones of this bird are yellow.

Geocichla erythronota, Sclater.

Five miles from Menado, on the way to Lotta, in February and March; at Tumumpat, near Menado, in March; in the churchyard of the Europeans at Menado from April to July.

Lives on the ground, very shy, only to be shot from far.

Iris of a dark slaty colour; feet nearly white.

Feeds on beetles, which I found in the stomach.

I wonder that Lord Tweeddale gave me credit for having got this bird, in his "Appendix" and not in his "List," seeing that

I had sent this species, and others for the first time, together with *Meropogon forsteni,* for which species he gives me credit in the "List." The same remark applies to *Ceycopsis fallax* and others.

TRICHOSTOMA CELEBENSE, Strickl.

Conceals itself in the interior of low bushes, and is therefore difficult to get.

MELANOPITTA FORSTENI (Bp.).

Native Malay name, "Mopo-idiu," *i. e.* "Green Grandfather" (explanation see below).

The bird is difficult to obtain, in consequence of its shyness, or perhaps from its being a rare bird. Several of the black-headed Pittas are not easy to procure, according to my experience, such as *P. sordida,* of the Philippine Islands, and also *P. novæ-guineæ,* of New Guinea; whereas *Pitta maxima,* of Halmahera, and *P. rosenbergi,* of Mysore, must be called common birds. Have the latter lost, or never acquired, shyness in consequence of freedom from enemies?

M. forsteni I found near Menado in December 1870, but later only once again in these regions, notwithstanding that I always had my eyes open for it. The following species is more frequent.

ERYTHROPITTA CELEBENSIS (Forsten).

Malay and Alfurous name in the Minahassa, "Mopo," *i. e.* "Grandfather."

Near Menado from January till July; Togian Islands, August; near Segeri, South Celebes, in September.

Although the red-breasted Pitta of Celebes is not so difficult to procure as the black-headed, it is nevertheless a bird which it is not easy to get a shot at, being very quiet in the daytime, and seldom calling except in the morning and evening its *tüüüüü tchui.* In the evening the cry *oppo* (origin of the native name) is heard, with which male and female call one another, the notes sounding melancholy and protracted. "Oppo" means, in the language of the country, "grandfather;" and the natives tell the tale, that once a child, which had gone with its grandfather into the forest, got astray, was transformed into a bird, which now always calls for its grandfather.

Pitta celebensis only runs on the ground, and is very shy and watchful; it glides noiselessly through the leaves; and, as its back is green, it can only with difficulty be detected. To approach it one must creep through the densest brushes; and without imitating the call of the bird its pursuit would be in vain. But if the hunter imitates the cry, he can draw the bird almost to the muzzle of his gun. During the daytime they go singly, in the evening in pairs together. The nest is to be found in brushes near small pools. The bird digs a hole in the slope of the river-bank, and builds its nest therein of wood and leaves, lined with cotton or hairy plant-materials (for instance, from *Arenga saccharifera*, Lab.). It lays two eggs. If the female sits on the eggs, the male watches in the neighbourhood, and it takes the place of the female when she goes for food. This Pitta feeds on beetles, small caterpillars, &c.

In the young bird the red is very pale, as also the other colours. In old individuals the red likewise is lighter, or perhaps before the moults. The male has much more brilliant colours than the female.

Iris greyish brown; bill black; feet greyish black.

(Compare also my notes in Rowley's Orn. Misc. vol. ii. p. 327).

GERYGONE FLAVEOLA, Cab.

I discovered this bird in January 1873 near Makassar, and also found it at Tello, some miles from Makassar. It is a lively little bird; and its call is often heard, at least during that month. It calls about nine times one after another, beginning with the highest and ending with the deepest tone, in regular short intervals, very loud and often.

Iris, bill, feet, and claws black.

Dr. Cabanis described this new species in the Journ. f. Orn. 1873, p. 157.

BUDYTES VIRIDIS (Gm.).

Menado, March; Limbotto, July; Makassar, January.

Iris dark; feet and claws blackish; bill blackish grey.

Hirundo gutturalis, Scopoli.

Menado, March; Togian Islands, August; Tello (South Celebes), January.

Iris brown; feet, claws, and bill black.

In the stomach beetles.

Very active, but often rests on single branches of trees in the flooded rice-fields of Tello.

Hirundo javanica, Sparrm.

Tello, near Makassar, in January.

Cyornis rufigula, Wall.

Near Menado in March.

Hypothymis puella (Wall.).

Alfurous name in the Minahassa, "Rui" (its call).

Not rare near Menado from January till July; Limbotto, July; Togian Islands, August.

Feeds on insects (butterflies, spiders, &c.).

The male is of a more brilliant blue than the female, the latter more greyish. The nestling is grey, belly and breast white, head grey.

Iris blue; it has large eyes; feet blue, like the belly; claws black; bill blue, like the head; even the bones are blue.

The nest is placed on twigs of trees, and made of moss &c. I got one, which is still in my collection (Dresden Museum), in March 1871, near Menado. It contained two young birds, one of which escaped. I put the nest back in its place, and observed that three old birds always remained near. They cried *tschirret, tschirret,* in their fright; nay, they tried to attack me when I took the young one and put it down on another spot; they followed and immediately brought food if it chirped. One of the three old birds I procured with the blowpipe; it was a female; but I cannot say whether the other two were both males, or a male and a female. All three had remained with the young one to feed it. This latter was still quite helpless.

The old birds call three times when they answer each other in play, and utter *rui, rui,* when they call each other.

Artamus monachus, Temm.

Native Malay name, "Maspas-utan" (utan = forest).

Only in the mountains of the Minahassa.

Feeds on insects, butterflies on the wing, grasshoppers, &c. Sits quiet on a tree till it has seen a prey, then rushes on the flying animal and returns. Nest hanging from a twig. Flies in flocks.

Cries *tschirr-woouit* twice; and at the same time a trembling movement goes over the wings and the body, chiefly over the wings.

Artamus leucorhynchus (L.).

Native Malay name, "Maspas."

Very common at all times and everywhere in Celebes, Minahassa, January to July; Limbotto, July; Makassar, October and January.

Iris brownish; bill bluish; feet bluish grey; claws blackish.

Sits in flocks of ten and more together. Satiated they play, fly from tree to tree, soar in the air, &c. At Makassar once a specimen allowed me to approach quite near. Other habits and cry like those of *A. monachus.*

Lanius magnirostris, Less.

I got a young specimen of this bird in March near Menado, but did not see it again in Celebes. The genus *Lanius* was then unknown in Celebes, so far as I am aware; and this fact proves that we are not yet able to point out sufficiently what genera are absent and what are not, as still more genera, unknown at present in that island, will probably be discovered.

Graucalus leucopygius, Bp.

Native Malay name, "Burong-minia."

Menado, March and April; Togian Islands, August.

Iris brownish black; bill, feet, and claws black.

Feeds on ants, larvæ, &c.

Graucalus temmincki, Müller.

I only procured four specimens near Kakas, in the mountains of the Minahassa (about 2000 feet high), and never met with the bird again.

VOLVOCIVORA MORIO (Müller).

I only got a few specimens in the Minahassa, and am of opinion that the bird is not common during the months which I spent there.

CRINIGER AUREUS, Walden.

I discovered this bird (which was described by Lord Tweeddale in Ann. & Mag. Nat. Hist. 4th ser. vol. ix. 1872, p. 400) on the chief island of the Togian group, on its highest summit, about 6000 feet above the sea, in August 1871. A *Criniger* from Celebes itself is not yet known; but I do not doubt that the form exists there.

Iris reddish yellow; feet grey; claws and bill black.

Feeds on fruits.

LALAGE DOMINICA (Müller).

This species was procured by me near Makassar in January and October, and at Batubassi in November (in April on Cebu, Philippines). The specimens show no trace of white on back and uropygium. The white superciliary stripe is nearly absent.

Iris brownish; feet bluish grey; claws blackish; bill black.

LALAGE LEUCOPYGIALIS, Walden.

Minahassa, January to July; Gorontalo, Limbotto, July.

A common bird. It appears to represent *L. dominica* in North Celebes; but we do not yet know the limits of the range of the two species. At all events it is remarkable that the North-Celebean form differs from the South-Celebean, as well as from the Philippine one, which two are alike. The white supercilium is broader in the Philippine specimens than in those from North Celebes.

A very active bird; in flocks; its call is a protracted whistle or a loud chirping cry.

(*Lalage aurea* was never procured by me in Celebes.)

ARTAMIDES BICOLOR (Temm.).

I only got one young specimen in July near Limbotto, and an old one on the Togian Islands in August. Mr. Sharpe has said something about the first in his paper in the Mitth. a. d. k. zool. Mus. Dresden, iii. 1878.

DICRURUS LEUCOPS, Wall.

Native Malay name, "Burong-gunting," *i. e.* "Scissor-bird," on account of the shape of its tail.

Minahassa, January to July; Limbotto, July; Togian Islands, August; Tanette, September; Makassar, October.

Iris white; feet, claws, and bill black.

Feeds on insects (grasshoppers &c.). Whistles much in very different ways. One bird often makes such a noise in the morning that the whole forest appears to be full of various birds. It often deceived me in this way.

DICRURUS, sp.

It was reported to me that in the mountainous districts of South Celebes there exists a *Dicrurus* with the outer tail-feathers lengthened and broadly webbed (like species of the genus *Dissemurus*).

ANTHREPTES CELEBENSIS, Shelley (*malaccensis*, Scop.).

All Nectariniidæ are called by the natives "Burong-tjui."

A common bird in the Minahassa. Togian Islands, August; Limbotto, July. South Celebes: Batubassi, November; Makassar, Tello, January.

Iris red; feet greyish green; claws grey; sole of the foot yellow; bill black. Feeds on insects.

I obtained two specimens from Limbotto which show certain differences in coloration and bill, but probably are nothing more than young females. Mr. Shelley has described them in his monograph of the Cinnyridæ.

CHALCOSTETHA PORPHYROLÆMA (Wall.).

Makassar, January.

Iris brown; bill, feet, and claws black.

Chirps on flowering trees, and is very active.

ARACHNECHTHRA FRENATA (Müll.).

A common bird. Minahassa, January to July; Togian Islands, August (here very frequent in the mangrove-bushes near the sea-shore); Batubassi, November.

Chirps very much.

Iris red. Feeds on insects.

Nectarophila grayi (Wall.).

Native Malay name, "Burong-tjui-kapala-mas," *i. e.* "Golden-headed."

Rarer than the preceding species. Menado, March; Togian Islands, August.

Iris red; feet, claws, and bill black. Feeds on insects.

Æthopyga flavostriata (Wall.).

I only got this bird near Kakas (about 2000 feet) in June.

Dicæum celebicum, Müll.

A common bird near Menado, from January till July; Makassar, Tello, January.

Iris brown; bill, feet, and claws black. The young bird has a reddish-yellow bill.

Prionochilus aureo-limbatus, Wall.

Kakas, June; Limbotto, September.

Myzomela chloroptera, Walden.

Not a rare bird from March till July near Menado.

Zosterops intermedia, Wall.

Makassar, Tello, January.

In flocks on brushes and trees. Chirps likes a Sparrow.

Iris yellow; bill grey, bluish below; feet and claws greyish blue.

Padda oryzivora (L.).

Native Malay name, "Burong-gotollo" ("Burong-galate" in Java). All Ploceidæ are called thus.

Rare at Menado (March), perhaps introduced there; plentiful in South Celebes; Makassar, October; Segeri, September.

Munia molucca (L.).

In large flocks in March, near Menado.

Munia jagori (Cab.).

In flocks in March, near Menado; Makassar, January.

According to age and sex, varying very much in the intensity of its brown and black colours.

Iris brown; bill bluish; feet and claws light greyish blue.

Corvus enca (Horsf.).

Native Malay name, "Wokka-wokka."

Common bird everywhere in Celebes at all seasons.

Streptocitta torquata (Temm.).

Native Malay name, "Burong-pandita," *i. e.* "Minister's bird," on account of its black body with white ruff.

Very common in North Celebes; Menado, January to July; Limbotto, July.

It is generally seen on dead branches high on trees, and makes scissor-like and balancing movements with its tail.

I cannot convince myself that *Streptocitta caledonica* (Lath.) is a distinct bird from *S. torquata*. The only differences recorded are the yellow colour of the first third of the bill and the greenish hue of the plumage. I could not discover a decided difference as to this hue when I compared last summer the two specimens of *S. caledonica* in the British Museum (which appear to be young individuals with lighter throats) with specimens of *S. torquata*; neither does a specimen of *S. caledonica* in the Bremen Museum (which I discovered last summer, with unknown habitat) differ from one of *S. torquata* from North Celebes (which I forwarded to Dr. Finsch, and which he had the kindness to compare) in any respect, except in the yellow bill; so Dr. Finsch informs me. Besides, I got in Menado a specimen with yellow on the bill (I had this specimen in Europe in my hands, but am sorry to say that I do not know what has become of it); and Dr. Beccari thinks he has seen both species together near Kandari in South Celebes. If, therefore, these small differences do not even coincide with a different geographical range, as was supposed till now, the two birds cannot, in my opinion, be separated specifically. The differences are either due to age or to individual variation.

Nevertheless I do not wish to decide the question now, but shall wait for further specimens from Celebes before making up my mind.

Basilornis celebensis, Temm.

Native Malay name, "Radja-sië," *i. e.* "King of the Siës;"

"Sië" is the name for *Calornis*; it is said to fly in company with a flock of *Calornis neglecta*, a single large bird among many of these smaller ones.

Appears to be rare. Not found at all near Menado during the months which I spent there. Rurukan, May; Limbotto, July.

ACRIDOTHERES CINEREUS, Müll.

I never obtained this bird in the north of Celebes; but near Makassar it is very common.

STURNIA PYRRHOGENYS (Schleg.).

From the Minahassa and the district of Gorontalo; not at all times present.

ENODES ERYTHROPHRYS (Temm.).

Only near Kakas (about 2000 feet), procured by me in June, but abundant there.

CALORNIS NEGLECTA, Walden.

Native Malay name, "Sië." (The Ternate species is called there "Idi-idi.")

The most common bird near Menado, January to July; Limbotto, July. Young males and females with streaked plumage.

Perhaps not to be separated from *C. panayensis* from the Philippines.

COLUMBÆ.

As a general remark, I beg to say that most species of the Pigeon tribe in Celebes fly out in the morning from 6 till 9 o'clock, then frequent very dense and shady spots, rest till 4 P.M., and fly again from 4 till 6 P.M. for food. In captivity they sit quietly, devour greedily the food which they can get, but do not show signs of active life.

OSMOTRERON GRISEICAUDA (Gray).

Native Malay name, "Pombo-idiu," *i. e.* "Green Dove." Alfurous name in the Minahassa, "Wungull."

Cry *kuwu, kuwu,* sad and howling. Old folks say to little children who whine that they are just like this bird.

Feeds on fruits, waringin and others. Flies singly, very quickly.

A common bird everywhere and at all times in the Minahassa, in the district of Gorontalo, and in South Celebes.

Iris yellow; feet red; claws grey; bill greenish black.

Ptilopus fischeri (Brügg.).

The Leiden Museum has recently received a series of this fine pigeon from South Celebes, but without an exact locality. It recalls in its general appearance *P. cinctus* of Timor.

Lamprotreron formosa (Gray).

Not so frequent as *Osmotreron griseicauda.*

Bill black; iris yellow; feet coral-red. In the stomach I found waringin fruits.

Iotreron melanospila, Salvad. (*melanocephala,* Forster).

Native Malay name, "Pombo-idiu kapala-itam," *i. e.* "Green Dove with black head."

Cry *häu,* hollow, difficult to imitate. Mostly flies in pairs. Not rare, everywhere to be met with.

Iris yellow; bill greenish yellow; feet cherry-red; claws grey. Feeds on fruits.

My specimens from the Togian Islands (August) appear to differ a little, the head being rather violet than black.

Leucotreron gularis (Q. & G.).

Native Malay name, "Pombo-sangi," *i. e.* "Dove from Sangi Islands." (A curious name, as this bird appears not to occur on Sangi; perhaps the name is adopted in consequence of its superficial resemblance to *Zonœnas radiata* (Q. & G.), which does occur on Sangi.)

Rarer. Menado, May; Gulf of Tomini, August.

Carpophaga paulina, Temm.

Native Malay name, "Kum-kum-idiu" (idiu=green).

Everywhere on Celebes.

Iris red.

Very common, in flocks, generally on waringin trees.

Is represented on the Togian Islands by *C. pulchella,* Walden, discovered by myself and described Ann. & Mag. Nat. Hist. ser. 4, xiv. 1874, p. 157.

DUCULA ROSACEA (Temm.).

Kakas (about 2000 feet), June.

MYRISTICIVORA BICOLOR (Scop.).

Native Malay name, "Kum-kum-puti" (puti=white). Alfurous name in the Minahassa, "Puntiïn" or "Kelau."

A common bird at all times in the Minahassa, at Limbotto in July.

Fly in large flocks, and often so fill a fruit-tree that it looks quite white. They cross the broad sea-arms which separate the different small islands near Menado. Feed on fruits. Nest of twigs; two eggs.

Very shy, and difficult to procure, because they always remain on the highest trees. The young ones show more yellowish tints.

Cry, *wuum, wuum,* groaning deeply, so loud as to be heard a mile off.

I had a bird of this species in captivity for several months at Menado. It moved freely in the house, and did not fly away, was quite tame, and ate very much, but mostly sat quietly, and behaved like an animal of which the hemispheres of the brain had been removed.

MYRISTICIVORA LUCTUOSA (Reinw.).

Minahassa, Gorontalo; not rare.

A specimen of a white Fruit-Pigeon from Siao, Sangi Islands, which I procured there, can neither be placed under *M. luctuosa* nor under *M. bicolor,* being intermediate between the two; it has much grey on the primaries and secondaries, and the edges of the outer webs are darker, just as in *M. luctuosa.* Perhaps *M. bicolor* and *M. luctuosa* cannot be kept specifically separate, both occurring together in Celebes. *M. bicolor* also occurs in Ceram, together with *M. melanura,* which fact I record, because the Ceram habitat of *bicolor* is not mentioned in Count Salvadori's monograph of the genus *Myristicivora.*

ZONŒNAS RADIATA (Q. & G.).

I only got this species near Kakas; perhaps it may be called a rare bird.

HEMIPHAGA FORSTENI (Temm.).

Native name, "Tuptup."

Not so rare as *Zonœnas radiata* (Q. & G.) at Kakas, the only spot where I got *H. forsteni.*

MACROPYGIA ALBICAPILLA, Temm.

Very abundant at all times and everywhere on Celebes—Menado, Kakas, Langowan, Likupang, Isle of Banka (in the north of Likupang), Limbotto, Togian Islands, Posso, South Celebes.

I believe that *M. albicapilla* and *M. macassariensis* cannot be separated specifically, nor even as varieties. The sole difference between these two is said to be the white and brown head; but all intermediate stages can be found, nor are the birds divided geographically. These differences, in my opinion, are due to differences of age and sex.

TURACŒNA MENADENSIS (Q. & G.).

Native Malay name, "Pombo-itam-kapala-puti," *i. e.* "Black Dove with white head." Alfurous name in the Minahassa, "Trawuwu."

Common bird. Menado, January to July; Limbotto, July; Togian Islands, August.

Cry, *kaukau,* very high, as a knock on an empty cask.

Mostly flies alone. Feeds on different fruits, such as *Capsicum fastigiatum,* Bl., &c.

Iris red.

REINWARDTŒNA REINWARDTI (Temm.).

Kakas, June.

TURTUR TIGRINA (Temm.).

Native Malay name, "Terkuku."

A very common bird in the Minahassa (Limbotto, July) everywhere near the roads, on the sea-shore, and in the mountains. Flies in pairs; the male sings alongside the female; two eggs; nest of dry twigs; feeds on rice and the like.

This bird was introduced from Java about the year 1835, and has spread rapidly over the country.

PHLOGŒNAS TRISTIGMATA (Temm.).

Gorontalo.

CHALCOPHAPS INDICA (L.).

This handsome Ground-Pigeon is not a common bird, and is difficult to get, on account of its shyness and its habits.

Menado, May; Limbotto, July; Togian Islands, August.

Feeds on fruits.

Iris blackish brown; feet cherry-red; claws light grey; bill fiery red.

GEOPELIA STRIATA (L.).

Only procured in South Celebes, Segeri, Maros, Makassar; in flocks on the fields, September to November; very common.

CALŒNAS NICOBARICA (L.).

This Ground-pigeon is not common in Celebes. I did not procure it; and natives of the Minahassa declared they did not know it. But Hr. van Musschenbroek informs me that he shot two specimens near Bante, between Tanawangko and Amurang; it will be the same on Celebes as on Batchian, where Mr. Wallace records it as rare and shy. I heard that it occurs on the island of Banka, in the north of the Minahassa; but neither could I get it there. On the Sangi Islands it *is* a common bird.

GALLUS BANKIVA, Temm.

Native Malay name, "Ajam-utan," *i. e.* "forest-fowl."

Near Menado, March; Limbotto, July; Togian Islands, August; Posso, August.

Its cry can be immediately distinguished from that of the domestic fowl. The natives like to keep the Jungle-fowl; they catch it with trained domestic fowl. Such a trained-up fowl has the name "Wawansal" in the language of the Alfuros; and to catch Jungle-fowl is called "mawansal." The flesh of the wild fowl is delicate.

In March I found, a few miles from Menado, two eggs on the earth in a small brush, in uninhabited country; they were longer than the eggs of domestic fowl of this region.

MEGAPODIUS GILBERTI, Gray.

Native Malay name, "Moleo-kitjil" (kitjil = little).

In the Minahassa this is at all events a rare bird; I only once (March) got a young individual which, I do not doubt, belongs to this species, the existence of which the natives assured me they were acquainted with. This young one had the head and nape olive-brownish; mantle, back, uropygium, and wing-coverts irregularly banded with brownish red; chin yellowish; throat olive-brownish; breast and belly somewhat lighter, and shading into red-brown; wings greyish brown; bill dark horn-colour; feet black.

Hr. van Musschenbroek informs me that he got specimens at Tateli, seven miles from Menado.

Frequent on a small island near the mainland of Celebes, off Paguatt (district of Gorontalo), in the Gulf of Tomini (September), whence I procured a series of specimens. The natives told me that it constructs a mound about two feet high, of leaves and bushes, in which the eggs are buried. I got the species also from the Sangi Islands.

MEGACEPHALON MALEO, Temm.

The natives do not call this bird "Maleo," but "Moleo."

I met with it near Kalinaong on the sea-shore (North-east Minahassa) in May, and on the sand-volcano Soputan (about 6000 feet) in June. It occurs nearly everywhere on the sea-shore in North Celebes; but I did not hear of it in the Gulf of Tomini, where it nevertheless probably also occurs. On the island Siao, Sangi group, it is a common bird; specimens from there agree with the Celebean ones. The bird is often brought alive to Menado, as well as the eggs.

Casque black; bill at the base of the upper mandible reddish brown, of the under mandible and the middle of the upper mandible black, point of bill yellowish; skin of the neck blackish; round the eyes of a fleshy yellowish colour; legs bluish black; feet and claws yellowish. Under surface of plumage an intense salmon-colour, which soon fades away in the cabinet.

I made a trip in a small sailing-vessel from Menado round the north coast, through Limbe Strait, to Kema. On the north coast, in the east of Likupang, before passing into Limbe Strait, on May 8th, 1871, I entered the following notes in my diary:—

"I heard from a fisherman that the chief 'tampat moleo,' *i. e.* the Moleo-ground, was then opposite the rock Magugimbong, near "Batu-puti," *i. e.* white-stone. The whole sea-shore would be visited by them; but, as it was early in the east monsoon, the breakers were still high, the shore not yet sufficiently broad and secure, and therefore many had not yet arrived. To the south of the bay of Kalinaong, round a rocky cape, there is a large and fine bay, which enters the country in a square; only a small part of it to the north has a white sandy shore, the rest a glossy black and rather steep shore, but this is backed by a fine forest on a plain, from which the hills gradually rise up to the volcano Klabat. Two small rivers, the Sapiron and the Araren, flow into the sea here. I passed in a small boat, between the rock Magugimbong and the mainland, another rocky cape, and a second smaller bay, the shore of which consists of white sand, where I saw some wild pigs (*Sus celebensis*) searching after fruits. Everywhere the breakers were too high to go ashore. To the south a rocky cape follows again, and a large irregular bay, with black sand, leaving only a white sandy spot to the south-east; this is "Batu puti," where a small rivulet runs into the bay. In the north of this bay there is another small stream called Tiwu; and here alone the less heavy waves permitted me to land. We pulled the boat ashore and were on the black ground, which did not consist of sand in the common term, but of small stones up to the size of a bean, rounded and polished, into which the foot sank to the ankle. I immediately saw unmistakable tracks of Moleo-feet, clear and large, often together with tracks of the tail, which drags on the ground. Following these tracks I soon arrived at some holes. My men dug up several of them to a depth of four feet without getting any eggs. At several spots it could be seen that the birds had begun to dig holes.

I shot two males from a high tree, and saw many more; they came singly or in troops to the shore, and there must have been many of them. The cry is gargling *grrrrrr*, as if coming from the belly. I had often heard it before from specimens in captivity at Menado. I then shot a young crocodile three feet in length (*Crocodilus biporcatus*), which was busy digging for eggs in a Moleo-hole; and I saw apes (*Cynopithecus niger*) and tracks of the Sapi-utan (*Anoa depressicornis*).

"The Moleo sits with the head drawn in, and looks very pretty with its reddish underparts."

EUDROMIAS GEOFFROYI (Wagl.).

On the Lake of Tondano in June, and on that of Limbotto in July.

ÆGIALITIS PERONI (Temm.).

Limbotto, July.

STREPSILAS INTERPRES (L.).

Menado, March.

HIMANTOPUS LEUCOCEPHALUS, Gould.

Tondano, June; Limbotto, July.

PORPHYRIO INDICUS, Horsf.

Native Malay name, "Rembang."

In large flocks on the lakes in North Celebes. Lake of Lino in April and May; Lake of Tondano, June; Lake of Limbotto, July.

These birds swim well, and run rather than fly. The males fight much together, and are very noisy. The females are smaller and not so blue as the males, the young ones are grey. They make their nest, when the rice ripens, from heaps of the rice-plant, which they bring together and trample down. They lay from three to five eggs, which are spotted with black and red. They feed on fishes, but also damage the rice-fields very much; they eat the tip of the young plant before it has flowered. Their cry is *tet, tet, tet,* very sharp and loud.

The natives believe that if a "Rembang" cries near a village some one is sure to die.

HYDRALECTOR GALLINACEUS (Temm.).

I only met with this species on the Lake of Limbotto, in July, in flocks. Swimming between the green water-plants of the lake, it is a splendid bird, especially when the sun shines on its brilliant red crest. The Lake of Limbotto is full of water-birds.

Lord Tweeddale says, "Menado (*mus. nostr.*);" but I doubt whether it occurs at Menado; and as no collector's name is mentioned, little value can be attached to the statement. Besides, "Menado" has been often wrongly used for the whole Minahassa.

GALLINULA FRONTATA, Wall.

Native Malay name, "Rembang-kitjil," *i. e.* "small Rembang," *Porphyrio indicus* being the great Rembang.

Lake of Lino in May; Lake of Tondano, June; Lake of Limbotto, July.

Concerning the habitat "Menado," the same remarks apply to this as to the preceding species.

ERYTHRA PHŒNICURA (Forsten).

Native Malay name, "Weres." Alfurous name of the Minahassa, "Terwowok" (its cry). (On Java it is called "Ajam-ajaman.")

Menado, April. I had in captivity a living female with two brownish black young ones; these look much like young Megapodes. Kakas, June.

Generally a male and female go together. They have many of the habits of the fowl, dig in the ground with their feet and search for animals: always live among the reeds on the water, where they also sleep. The mother calls the young ones in the evening; and they sleep together, even if the latter are already able to search for their food alone. The nest is placed between bushes in pools of water. Cry *wowok, terwowok*. Very good to eat.

ORTYGOMETRA CINEREA (Vieillot).

Kakas, June; Limbotto, July.

HYPOTÆNIDIA PHILIPPENSIS (L.).

Menado, March; Limbotto, July.

RALLINA ISABELLINA (Temm.).

Menado.

NUMENIUS PHÆOPUS (L.).

Native Malay name, "Lore."

Menado, March; Menado-tua, April.

Cry *beeeeee.*

Assemble at sunset in flocks of hundreds, and are very noisy before they go to rest. They also cry at night on the sea-shore. Have fixed sleeping-grounds on islands, to which they fly in flocks. Run quickly and are very shy. Only to be found on the sea-shore. Feed on crustacea.

Nest on small trees, very simple, of twigs and leaves; two eggs. Very good to eat.

Actitis glareola (Gm.).

Menado, March; Limbotto, July.

Actitis hypoleuca (L.).

Menado, March; Limbotto, July; Togian Islands, August.

Totanus glottis (L.).

Kakas, June; Limbotto, July.

Totanus pulverulentus, Müll.

Menado, March.

Tringa minuta, Leisler.

Limbotto, July.

Tringa acuminata (Horsf.).

Limbotto, July.

Gallinago megala, Swinhoe.

Menado, March.

Ardea purpurea, L.

Very common in North Celebes and in the bay of Tomini.

Herodias nigripes (Temm.).

Menado, May; Kakas, June; Limbotto, July; Togian Islands, August.

Demiegretta sacra (Gm.).

Menado, March.

Nycticorax caledonicus (Gm.).

Menado, March; Limbotto, July.

Butorides javanicus (Horsf.).

Native Malay name, "Sweko-itam," *i. e.* "Black Heron." Alfurous name in the Minahassa, "Rarappera."

Lake of Tondano, June; Menado, March.

Calls *qua, qua,* like a Crow.

Flies alone. Sits much on a twig over or near the water, bent together, but eagerly looking for food, and suddenly rushing down on a fish or a crab. Also feeds on eggs of freshwater fishes, especially of *Ophiocephalus striatus* (native name, "Kobós"), which is common in the Lake of Tondano; but often the strong fish attacks the bird, and hinders it from devouring the eggs.

Builds its nest near the water in the reeds.

BUBULCUS COROMANDUS (Bodd.).

Native Malay name, "Sweko-puti," *i. e.* "White Heron." Alfurous name in the Minahassa, "Pokok-puti."

Cry *quak*.

Flies in flocks; sits on bushes near the lakes, close on the level of the water, looking out for crustacea, which it quickly picks up as soon as they come out of the water. Satiated, they fly to pasture-ground, and sit on the backs of horses and cattle, a curious sight. In the evening they assemble and fly in troops to their roosting-places in the reeds. They nest in the reeds, laying two or three eggs.

The young ones have long, coarse, golden-yellow and hair-like feathers.

MELANOPELARGUS EPISCOPUS (Bodd.).

Not rare in the Gulf of Tomini, but rarely goes as far north as Kema, where I got one specimen in May. Another one I procured at the Lake of Limbotto in July, and one on the Togian Islands in August.

QUERQUEDULA CIRCIA (L.).

Limbotto, July. Rather rare.

MARECA GIBBERIFRONS, Müll.

Very common on the lakes of the Minahassa. Lake of Lino, May; Lake of Limbotto, July, in large flocks.

DENDROCYGNA VAGANS, Eyton.

Lake of Lino in May.

PUFFINUS LEUCOMELAS (Temm.).

Hr. van Musschenbroek informs me that he got a specimen of this species between Menado and Kwandang. The species was brought from Morotai by Dr. Bernstein; I got it near Dorey, New Guinea; besides, it is known from Japan.

Pelecanopus medius (Horsf.).

Straits of Limbe, North-east Celebes, May, in large flocks; where they nest on the isolated rocks in the sea.

I shot a specimen, to which a mate continually returned as it lay on the ground.

Sternula minuta (L.).

Straits of Limbe, May.

Podiceps minor (Gm.).

Native Malay name, "Maweres." Alfurous name in the Minahassa, "Wangel."

Lake of Lino in May.

These birds swim in large flocks, and are difficult to procure, being very shy. They dive as soon as any one approaches, and only emerge twenty fathoms and more from the spot. Wounded by shooting, they dive, and often stick with the bill close to a water-plant, which they do not let slip till they are dead. Can only fly just over the water. Feed on fishes and crustacea.

Dysporus sula (L.).

Hr. van Musschenbroek brought a specimen from the Minahassa.

Plotus melanogaster (Forster).

River Tumumpat, near Menado, April.

APPENDIX.

A List of the Birds collected by myself on the Togian Islands in August 1871.

Cacatua sulphurea (*Gm.*).
Prioniturus platurus (*Kuhl*).
Prioniturus flavicans, *Cassin.*
Tanygnathus muelleri (*M. & Schl.*).
Trichoglossus ornatus (*L.*).
Loriculus quadricolor, *Walden.*
Haliastur leucosternus, *Gould.*
Spilornis rufipectus, *Gould.*
Muelleripicus fulvus (*Q. & G.*).
Merops ornatus, *Latham.*
Alcedo asiatica, *Sw.*
Sauropatis sancta (*V. & H.*).

Sauropatis chloris (*Bodd.*).
Callialcyon rufa (*Wall.*).
Pelargopsis melanorhyncha (*Temm.*).
Macropteryx wallacii (*Gould*).
Cranorrhinus cassidix (*Temm.*).
Phœnicophaës calorhynchus (*Temm.*).
Eudynamis melanorhyncha, *Müll.*
Cacomantis lanceolatus, *Müll.*
Pyrrhocentor celebensis (*Q. & G.*).
Broderipus celebensis, *Walden.*
Erythropitta celebensis (*Forst.*).
Cisticola cursitans (*Frankl.*).
Hirundo javanica, *Sparrm.*
Hypothymis puella (*Wall.*).
Artamus leucorhynchus (*L.*).
Graucalus leucopygius, *Bp.*
Volvocivora morio (*Müll.*).
Criniger aureus, *Walden.*
Artamides bicolor (*Temm.*).
Dicrurus leucops, *Wallace.*
Anthreptes celebensis, *Shelley.*
Chalcostetha porphyrolæma (*Wall.*).
Arachnechthra frenata (*Müll.*).
Nectarophila grayi (*Wall.*).
Dicæum celebicum, *Müll.*
Munia jagori (*Cab.*).
Corvus enca (*Horsf.*).
Streptocitta torquata (*Temm.*).
Calornis neglecta, *Walden.*
Scissirostrum dubium (*Lath.*).
Osmotreron griseicauda (*Gray*).
Iotreron melanospila, *Salvad.*
Carpophaga pulchella, *Walden.*
Macropygia albicapilla, *Temm.*
Turacœna menadensis (*Q. & G.*).
Chalcophaps indica (*L.*).
Gallus bankiva, *Temm.*
Megapodius gilberti, *Gray.*
Charadrius fulvus, *Gm.*
Actitis glareola (*Gm.*).
Actitis hypoleuca (*L.*).
Ardea purpurea, *L.*
Herodias nigripes (*Temm.*).
Melanopelargus episcopus (*Bodd.*).
Hydrochelidon leucopareia (*Natt.*).
Pelecanopus medius (*Horsf.*).

There can be no doubt that there are many more species to be discovered on the Togian Islands; but there can be also no doubt that its avifauna will prove to keep the thoroughly Celebean character which the above list indicates. Nevertheless the avifauna of an island, or island-group, being isolated more or less from a neighbouring mainland, is interesting, whether it offers differences from the avifauna of the mainland or not, because it will permit of conclusions to be drawn as to the migration of birds, as to the former connexion of the two areas or their independence of one another, and so on. Among the fifty-eight species which I collected on the Togian Islands, only two prove to differ from the Celebean forms, viz. *Loriculus quadricolor,* a deviation from *L. stigmatus,* and *Carpophaga pulchella,* which represents *C. paulina.* One species, *Criniger aureus,* is not yet known from Celebes, and perhaps remains still to be discovered there; for I do not doubt that many more species will still be discovered on Celebes. *Loriculus* *quadricolor, Carpophaga pulchella,* and *Criniger aureus* proved to be new to science, as well as many more species from Celebes itself, a list of which I have given in the 'Journal für Ornithologie' (1873, p. 404), as well as a list of birds not known from Celebes before my sojourn there.

XI.—*Contributions to the Ornithology of Siberia.*

By Henry Seebohm.

[Continued from p. 18.]

Tetrao urogallus, Linn.

The Capercailzie was not nearly so common as the Black Grouse; but I succeeded in obtaining two males and two females. I shot the first female on the 29th of April. In this bird the feathers on the feet extended halfway down the last joint of the toes, within a quarter of an inch of the claws. The second example was shot on the 10th of June; and the feathers on the feet extended only halfway down the first joint of the toes, nearly an inch and a half from the claws. The crops of these birds were full of the spine-like leaves of the cedar and Scotch fir. I saw no trace of *T. urogalloides.*

Tetrao tetrix, Linn.

Black Grouse were common during our stay at Koo-ray′-i-ka. They appeared to find abundance of food in the buds of the birch and hazel in the severest weather. It was not an uncommon thing to see half a dozen of them in one tree together. We saw no more of them after passing the limit of forest-growth.

Tetrastes bonasia (Linn.).

I shot the first pair of Hazel-Grouse on the 3rd of May, and occasionally picked up a pair afterwards. On the 25th of June I took a nest with eight eggs. These birds were very easy to shoot. When disturbed from the ground they took refuge in a tree, where they allowed themselves to be easily stalked, not appearing to be alarmed at the rattling of my snow-shoes on the hard crust of the snow. The sailors told me they had been common in the autumn, but had disappeared in the severest part of the winter. Their crops were full of the buds of birch and hazel.

LAGOPUS ALBUS (Gm.).

The Willow-Grouse is a migratory bird in Siberia. It breeds on the tundra, and winters in the forests. As we sledged down the Yen-e-say′ in April we once or twice saw flocks of these birds flying northwards, apparently on migration. The sailors told me that Willow-Grouse were common at the Koo-ray′-i-ka in autumn, but disappeared in midwinter. The first I shot was on the 15th of May. It was in full winter plumage, except a band of chestnut feathers round the neck; but on raising the white feathers on the crown the new crop of chestnut feathers was visible.

I very seldom saw a bird until the ice on the river began to break up, when they were more plentiful for a week or two, after which they disappeared from the forests. A bird I shot on the 6th of June was in full winter plumage, except a chestnut ring round the neck, a sprinkling of chestnut feathers on the crown, and two or three chestnut feathers on the shoulders and scapulars. On the 4th of July, in lat. 67°, where patches of tundra were found between the forest and the river, I found them breeding in full summer plumage. On the 22nd of July, in lat. 71½°, they had young.

LAGOPUS RUPESTRIS, Gm.

Professor Newton was the first to point out to me the fact that my Yen-e-say′ skins labelled *L. mutus* were not that bird, but most probably *L. rupestris*. I brought home two males and a female, all shot on the 22nd of July, in lat. 71½°, four or five hundred feet above the level of the sea. I also brought home a skin in winter plumage in which the space between the eye and the bill is black; but as I bought it in a frozen state on the Arctic circle, it may have been brought down from a locality much further north.

The female differs from a female of *L. albus*, shot on the same day in the valley, in having a slenderer bill, and in having the feathers of the back mostly tipped with white, and rarely with ochraceous, whereas in the Willow-Grouse they are mostly tipped with ochraceous, rarely with white. The males differ from the female in having the ochraceous bars narrower, more numerous, and interrupted, making the general effect of the plumage of the upper parts darker and richer. The throat and breast are rather paler than the back. The belly and under tail-coverts of one are white, and in the other the feathers on the flanks are half white and half mottled black and ochraceous, on the under tail-coverts all mottled, and on the belly half white and half mottled ash-grey and ochraceous.

So far as I know, this is the first record of this species on the mainland of the Palæarctic region. In size my skins of this bird are smaller than those of the Willow-Grouse, measuring in length of wing 7½ to 7¾ inches against 7¾ to 8 inches (measured with a tape across the upper surface of the wing).

BOTAURUS STELLARIS (Linn.).

I brought home the skin of a Bittern which I found hanging up in a peasant's house in a little village on the banks of the Yen-e-say′, in lat. 64°. The peasant told me that he had shot it in the neighbourhood some time during the previous summer.

GRUS COMMUNIS, Bechst.

I first observed the Crane about lat. 60° on my return journey up the Yen-e-say′ on the 12th of August, when small parties were migrating southwards. I frequently saw these birds at Yen-e-saisk′ during the few days I remained at that town; and afterwards they were not uncommon on the Ob and the Too′-ra.

GRUS LEUCOGERANUS, Pall.

A small flock of four or five of these handsome birds flew leisurely over our steamer as we were threading the labyrinths of the Too′-ra. During flight they appeared to be pure white all over, except the outside half of each wing, which looked jet-black.

TRINGA TEMMINCKI, Leisl.

As soon as the snow had melted on the banks of the river, so that patches of bare grass were visible in favourable places, these oases were visited by small parties of Temminck's Stints. I shot the first on the 6th of June. Most of these birds migrated further north; but a few remained to breed, and on the 24th I found a nest containing two eggs on the south bank of the Koo-ray′-i-ka.

Further north, wherever we landed on the shores of the river or on the islands of the delta, Temminck's Stint was by far the commonest Sandpiper. I brought home several sittings of its eggs, both from the Brek′-off-sky islands in lat. 70½°, and from Gol-cheek′-a, in lat. 71½°. On my return journey I found it plentiful on the banks of the Yen-e-say′ in in lat. 58° in the middle of August. These birds had probably not bred so far south, but were most likely slowly migrating southwards towards their winter quarters.

TRINGA MINUTA, Leisl.

I did not see any trace of the Little Stint until I reached Gol-cheek′-a, in lat. 71½°, on the 19th of July. It was then too late for eggs. I had, however, been fortunate enough to charter a Samoyade, who brought me a couple of baskets full of unblown eggs. In this collection were nine eggs so exactly like those of the Little Stint which Harvie Brown and I obtained near the banks of the lagoon of the Petchora, that I only required to see the birds in the neighbourhood to feel sure of their identity. I spent the following day on the tundra, and secured two female Little Stints; and on the 22nd I secured a male of this species.

TRINGA SUBARQUATA, Güld.

On the 15th of June I obtained a fine Curlew Sandpiper in full breeding-plumage at the village of Koo-ray′-i-ka, on the Arctic circle. It was doubtless *en route* for its breeding-grounds, nearer the sea than I was able to get, as I saw nothing more of this interesting species.

The eggs of this bird and those of the Knot are now the two great prizes left for British oologists to try and secure. Drs. Finsch and Brehm found the Curlew Sandpiper breeding in great numbers about the 1st of August on the isthmus of the Yalmal peninsula, near the margins of the lakes on the tundra, about lat. 67½°. They were too late for eggs, but had young in down in their hands. The mosquitoes, however, were so overwhelming that these adventurous ornithologists failed to bring home any specimens of this still unknown state of plumage. Capt. Feilden was more fortunate with the Knot. He brought home young in down obtained during the late Arctic Expedition. This bird was breeding in lat. 82½°, on the shores of the Polar basin, a little to the north of Cape Union; and the young in down were obtained on the 30th of July. It was also breeding on both shores of the channel at Thank-God Harbour and Discovery Bay, in lat. 81¾°.

TRINGA ALPINA, Linn.

I saw nothing of the Dunlin until the 14th of July, when I shot a couple of males in lat. 69°; and four days later I shot a male and female in lat. 71½°. With these birds were young in down. I am indebted to my friend Mr. Charles Murray Adamson, of Newcastle, who has paid great attention for many years to the changes in the plumage of the Waders, for pointing out to me the interesting fact that these birds are all moulting nearly the whole of their primaries at once, to such an extent as to incapacitate them for extended flight, and at a much earlier period than is the case in this country. Mr. Adamson suggests that in the high latitudes, where the summer is so short, the parent birds probably migrate with their young, instead of a fortnight later, as is usually observed in this country, Heligoland, &c. To enable them to do so the autumn moult must take place at an earlier date.

MACHETES PUGNAX (Linn.).

The Ruff was a common bird in the valley of the Yen-e-say′. I shot the first on migration on the 9th of June on the Arctic circle; and afterwards I met with them wherever there was long grass in the swamps of the tundra as far north as I travelled.

ACTITIS HYPOLEUCA (Linn.).

I shot the first Common Sandpiper on the 12th of June, and found it frequent on the banks of the river wherever I went.

Terekia cinerea (Güld.).

The Terek Sandpiper arrived at our quarters on the 8th of June, and was common on the banks of the river and islands as far north as lat. 70°.

Limosa lapponica (Linn.).

The only trace of the Bar-tailed Godwit which came under my notice was a single bird which Schwanenberg's mate shot for me on the Brek′-koff-sky islands during the spring migration.

Totanus glareola (Linn.).

Next to Temminck's Stint the Wood-Sandpiper was by far the commonest Wader in the valley of the Yen-e-say′. I shot the first on the 6th of June at the Koo-ray′-i-ka, but did not meet with it north of lat. 69°.

Totanus ochropus (Linn.).

I shot my first Green Sandpiper on the 15th of June, on the Arctic circle. It was by no means a common bird. On the 6th of July, at Egarka, in lat. 67°, I found a nest of this bird in a willow tree, about six feet from the ground, containing one egg. I did not meet with it further north; but on my return journey, early in August, I found it common on the banks of the river near Yen-e-saisk′.

Vanellus vulgaris, Bechst.

I did not meet with the Lapwing until we had nearly reached Tyu-mane′ on the return journey.

Charadrius pluvialis, Linn.

I shot the first Golden Plover on the banks of the Koo-ray′-i-ka on the 7th of June, and found it common on the tundra as far north as we went. On the return journey I spent some hours near Vare′-shin-sky, in lat. 69°, on the 29th of July, and saw several pairs of Golden Plovers. They were very anxious to lead me away from their young. Occasionally they uttered their plaintive cry from the ground, but more often from the summit of a larch tree. I shot one from the top of a larch at least fourteen feet from the ground.

CHARADRIUS FULVUS, Gmel.

On the 5th of June I had the pleasure of shooting my first Asiatic Golden Plover. This bird is at once distinguishable from the last-mentioned species by its smaller size, and grey instead of white axillaries. A third distinction may also be found in the comparatively longer tarsus of the eastern bird. In its voice it exactly resembles the Grey Plover. I noticed all the three variations with which I am so familiar in the note of the latter bird, but remarked that the third variation, which I take to be a combination of the two others more rapidly uttered (see Dresser's 'Birds of Europe,' Appendix to the article on *Squatarola helvetica*), is much more frequently uttered by the Asiatic Golden Plover than by the Grey Plover. I secured many specimens of this interesting bird as it passed the Koo-ray′-i-ka on migration. I did not observe it again until we reached lat. 69½°, on the open tundra just beyond the limit of forest-growth. Not a trace of a pine tree was to be seen; and the birches had dwindled down to stunted bushes scarcely a foot high. I took a nest of *Turdus fuscatus* with young birds as I climbed up the steep bank where alders and willows still flourished luxuriantly, and had scarcely reached the top before I heard the cry of a Plover. The tundra was hilly, with lakes and swamps and bogs in the wide valleys and plains. I found myself upon an excellent piece of Plover-ground, covered more with moss and lichen than with grass, sprinkled with patches of bare pebbly ground, and interspersed with hummocky plains, where ground-fruits and gay flowers were growing. I soon caught sight of both male and female, and sat down with the intention of watching the latter onto the nest. After wasting half an hour, during which the bird wandered uneasily round and round me without showing any partiality for a special locality, I came to the conclusion, either that the eggs were hatched, in which case my watching was in vain, or that I was so near the nest that the female dare not come on. The male had a splendid black belly; and I decided to take my first good chance of a shot at him, and then to devote another half hour to a search for the nest. He proved to be, as I suspected, the Asiatic Golden Plover, with grey axillaries. My search for the nest was a very short one. I found it in less than five minutes, within a dozen yards of my position. It was a mere hollow in the ground upon a piece of turfy land, overgrown with moss and lichen; and it was lined with broken stalks of reindeer moss. The eggs, four in number, were a size smaller than those of the Golden Plover, averaging $1\frac{36}{40} \times 1\frac{13}{40}$. (Eggs of the Golden Plover from the same locality average $2\frac{2}{40} \times 1\frac{16}{40}$.) These eggs were taken on the 13th of July, and were very much incubated.

Among the eggs which had been collected for me at Golchecka was a second sitting of Asiatic Golden Plover's. Here the bird was extraordinarily common. I tried to watch several birds onto the nest, but in every case without success. They behaved exactly as if they had young. I succeeded in catching one young bird in down, and reluctantly came to the conclusion that I was too late (on the 20th of July) for eggs. The young in down is quite as yellow as that of the Golden Plover.

In 'The Ibis' for 1863, p. 404, Swinhoe represents this bird as breeding plentifully on Formosa. The eggs are described as measuring $1\frac{20}{40} \times 1\frac{4}{40}$. These eggs are still in the Swinhoe collection, and average $1\frac{17}{40} \times 1\frac{2}{40}$. They exactly resemble my eggs in colour, but are much smaller and rounder at the small end. Two other eggs in the same collection, of exactly the same colour and shape, and from the same locality, are marked *Ægialitis geoffroii*. These two eggs are a shade smaller, measuring $1\frac{13}{40} \times 1$; but I am induced to think that Swinhoe has been led astray by his collectors, and that all these Formosa eggs belong to *Æ. geoffroii*. Swinhoe further states that *C. fulvus* is common on Formosa "all the year round." Unfortunately the skins of this bird from Formosa in the Swinhoe collection are not dated. I have no doubt that great numbers of this bird pass through Formosa in breeding-plumage in spring, and again in winter plumage in autumn. Some may very probably winter in so southern a station as Formosa; and after what Capt. Legge tells me of similar occurrences in Ceylon, I can imagine that barren birds in imperfect breeding-plumage may not unfrequently be found during summer in their winter quarters; but I scarcely think it possible that *C. fulvus* breeds south of the Arctic circle, at least three thousand miles further north than Formosa. If any of these Formosan eggs are those of *Æ. geoffroii*, it is evidence, as far as it goes, that this bird is a *Eudromias*, and not an *Ægialitis*; for they are almost miniatures of the eggs of the Dotterel, *E. morinellus*.

EUDROMIAS MORINELLUS (Linn.).

Small parties of Dotterel appeared from the 9th of June for about a week at the Koo-ray′-i-ka. I did not meet with this species again until the 25th of July, on my return journey, when, in lat. 71°, I shot a male and picked up a young bird in half down and half feathers.

ÆGIALITIS HIATICULA (Linn.).

The Ringed Plover arrived on the 8th of June at our winter quarters, and was common as far north as I went (lat. 71½°).

PHALAROPUS HYPERBOREUS (Linn.).

The Red-necked Phalarope arrived at the Koo-ray′-i-ka on the 15th of June, and was abundant as far north as I went.

GALLINAGO STENURA (Kuhl).

The first Wader which arrived at our winter quarters on the Arctic circle was the Pin-tailed Snipe. We shot a couple on the fifth of June, three days after the ice began to break up on the great river. Three days later they were exceedingly common on the oases of bare grass which the sun had been able to make in a few favourable situations in the midst of the otherwise universal desert of melting snow. I could easily have shot a score a day if I had had cartridges to spare. They used to come wheeling round, uttering a loud and rather shrill cry (some idea of which may be gathered by the sound of the word *peezh*, long drawn out); then they used to drop down with a great whirr of wings, and with tail outspread—

an operation which seemed so engrossing that they appeared seldom to discover until they were on the ground that they had chosen a spot to alight within twenty yards of a man with a gun. It was amusing to see them find out their mistake. Sometimes as soon as they caught my eye they would take wing and fly quietly away; but more often they would hurry off as fast as their legs would carry them, and hide behind a tuft of grass or a bush. I never heard the Pin-tailed Snipe "drum," as the Common Snipe often does, when wheeling round and round at a considerable height in the air; nor did I ever hear the *tyik-tyuk* so characteristic of the Common Snipe. I think the Pin-tailed Snipe is much easier to shoot than our bird. The flight seems to me slower and less zigzag.

GALLINAGO SCOLOPACINA, Bonap.

The Common Snipe was either much rarer or much more wary than the Pin-tailed Snipe; for out of twenty skins which I brought home with me four proved to be those of *G. scolopacina,* and sixteen those of *G. stenura.* They probably arrive on the Arctic circle at the same time, as my first Pin-tailed Snipe was shot on the 5th of June and my first Common Snipe on the 9th. I found a nest of the Common Snipe in a marsh on the outskirts of the forest in lat. 67° on the 6th of July. The eggs were considerably incubated. I can find no differences in size or general coloration in these two Snipes; but a minute examination discloses the following characters:—My skins of *G. scolopacina* vary in length of culmen from 2·87 to 3 inches, whilst those of *G. stenura* only measure from 2·33 to 2·73. *G. stenura* may be always at once recognized by the very narrow and stiff feathers on each side of the tail. The tail of this bird is also shorter, in my skins varying from 1·65 to 1·9. In my skins of *G. scolopacina* the length of the tail varies from 2·4 to 2·6. In *G. stenura* the under wing-coverts are all distinctly barred with black, whilst in *G. scolopacina* many of them are pure white. These two species of Snipe probably breed north of the Arctic circle, as I saw nothing more of them at the Koo-ray′-i-ka after the middle of June.

GALLINAGO MAJOR (Gmelin).

Six days after the arrival of the Pin-tailed Snipe the Double Snipe appeared in considerable numbers, and soon became by far the commonest species. In the evenings I used sometimes to watch these birds through my binocular. With a little caution I found it easy to get very near them ; and frequently I have sat partially concealed between a couple of willow bushes attentively turning my glass on two or three pairs of these birds, all within fifteen or twenty yards of me. They used to stretch out their necks, throw back the head almost onto the back, and open and shut their beaks rapidly, uttering a curious noise, like running one's finger along the edge of a comb. This was sometimes accompanied by a short flight or by the spreading of the wings and tail. The Double Snipe is by no means shy, and allows of a near approach. When it gets up from the ground it rises with a whirr of the wings like that of a Grouse, but not so loud. The Double Snipe probably breeds on the Arctic circle, as it still frequented the marshy ground near the Koo-ray′-i-ka when we weighed anchor in the ill-starred 'Thames' on the 29th of June, and I found it still frequenting the same locality when I returned in the 'Yen-e-say' on the 2nd of August.

CYGNUS MUSICUS, Bechst.

I did not succeed in identifying the common Wild Swan in the valley of the Yen-e-say′. Every skin which I had an opportunity of examining proved to be that of Bewick's Swan ; every footprint in the sand which I measured was that of Bewick's Swan ; and all the eggs I obtained agreed in size with those of Bewick's Swan which Harvie Brown and I obtained in the Petchora, and were too small for those of the larger species. Nevertheless there cannot be any doubt that *Cygnus musicus* is found in the valley of the Yen-e-say′, since Middendorff found it still further to the east, and it is common on the Amur. I examined a number of skins at various stations between Tomsk and Tobolsk, and found both species represented in nearly equal numbers.

CYGNUS MINOR, Pall.

We saw the first Swan on the Koo-ray′-i-ka on the 5th of May; but it was not before the 31st of that month that Swans passed over in any number. After the latter date thousands passed us, all flying north. I brought several eggs of Bewick's Swan home with me, obtained in lat. 69½°. I found the easiest way of identifying these birds was by measuring their footprints in the sand. From the centre of the ball of the heel to the centre of the ball next the claw of the middle toe, the impression of the foot of Bewick's Swan measures 5¼ inches, whilst that of the common Wild Swan measures upwards of 6 inches. Even in very slight impressions on hard wet sand I found it easy to make these measurements.

ANSER SEGETUM, Gmel.

The first Goose was seen at our winter quarters on the 9th of May. Whenever the weather was mild during May small parties of Geese flew over the ship in a northerly direction. When the wind changed and brought us a couple of days' frost or snow, we used to see the poor Geese migrating southwards again. The great annual battle of the Yen-e-say′ lasted longer than usual the year that I was there. We had alternate thaws and frosts during the last three weeks of May. Summer seemed to be always upon the point of vanquishing winter, but only to be driven back again with redoubled vigour. During all this time there must have been thousands and tens of thousands of Geese hovering on the skirts of winter, continually impelled northwards by their instincts, penetrating wherever a little open water or an oasis of grass was visible in the boundless desert of ice and snow, and continually driven southwards again by hard frosts or fresh falls of snow. It was not until the ice on the great river broke up that the great body of Geese finally passed northwards. On my return journey I had an opportunity of again witnessing a great stampede of Geese on the tundra in full moult and unable to fly. The first time I witnessed this interesting sight was near the delta of the Petchora two years previously. Then it was on the 27th of July, and in the valley of the Yen-e-say′ on the 25th of that month.

Anser erythropus, Linn.

On the 1st of June a small flock of Geese passed close over my head as I was lying *hors de combat* in a snow bank, the treacherous crust of which had given way and left me struggling up to my breast endeavouring to extricate myself without wetting my gun. These Geese were smaller than the Bean-Goose, and showed some black on the belly. I afterwards shot some of the same species and brought two skins home, which proved to be the Little White-fronted Goose.

Bernicla ruficollis (Pall.).

On the 1st of July the two mates belonging to Capt. Schwanenberg's schooner were out on the next island to that where their unfortunate vessel was lying wrecked. I had chartered them to collect eggs for me on the Brek′-off-sky islands in the Yen-e-say′, in lat. $70\frac{1}{2}$°. They were fortunate enough on that day to come suddenly upon a Red-necked Goose upon her nest. They shot her before she flew off, and, unfortunately, broke one of the two eggs upon which she was sitting. The other egg is now in my collection. It measures $2\frac{28}{40}$ by $1\frac{34}{40}$, and is of a dirty-white colour, more or less inclining to cream-colour.

On the 28th of July, as we were slowly steaming up the river, against stream and close inshore, I saw several of these very handsome birds with their young broods on the banks of the river. The captain was very anxious to get to Dudinka before Sot-ni-koff's steamer arrived there; so there was no possibility of going on shore. This was a few miles south of the island where my egg was taken.

Anas clypeata, Linn.

I shot a fine male Shoveller on the tundra near the village of Koo-ray′-i-ka on the 18th of June. This was a piece of moorland surrounded with forest, where many species of Duck were breeding. I very seldom saw this species in the valley of the Yen-e-say′.

Anas crecca, Linn.

As soon as the ice broke up on the river, Teal became very numerous; and on the 20th of June I took a nest with two eggs. I took the last Teal's nest on the 15th of July, in lat. 70½°, with fresh eggs.

Anas acuta, Linn.

The Pintail was one of the commonest Ducks on the Yen-e-say′. I took a nest with six eggs on the 20th of June.

Anas penelope, Linn.

The Widgeon was very common at our winter quarters as soon as the ice began to break up; and its weird cry, *mēē′-yŏo,* harmonized with the grating of the pack-ice and the splashing of the "calving" icebergs. I took the first nest, with seven eggs, on the 18th of June.

Anas boschas, Linn.

The only example of the Wild Duck which I procured was a female which I shot near Yen-e-saisk′ on my return journey.

Fuligula marila (Linn.).

I did not succeed in shooting a Scaup, but frequently recognized their harsh screams.

Fuligula clangula (Linn.).

The Golden-eye was not uncommon at the Koo-ray′-i-ka. I had a nest with thirteen eggs brought me on the 17th of June.

Harelda glacialis (Linn.).

The Long-tailed Duck was common on the lakes on the tundra.

Œdemia nigra (Linn.).

Black Scoters were abundant at the Koo-ray′-i-ka, but so wary that I was never able to get within shot of them.

Mergus albellus (Linn.).

I never actually shot a Smew on the Yen-e-say′, but had several opportunities of identifying the bird beyond doubt.

Mergus merganser (Linn.).

The Goosander was not uncommon at the Koo-ray′-i-ka; and I brought home several skins of this handsome Duck.

MERGUS SERRATOR (Linn.).

The Red-breasted Merganser was common near the village of Koo-ray′-i-ka. I brought home skins of males in two plumages and one of a female.

SOMATERIA SPECTABILIS (Linn.).

Kitmanoff, the captain and part owner of the steamer 'Yen-e-say′,' in which I returned from Gol-cheek′-a to Yen-e-saisk, had a King Eider stuffed in his cabin. He told me it was shot at Gol-cheek′-a. Capt. Wiggins told me this bird breeds in great numbers together with the common Eider on a large island in the By-der-at′-sker-y bay. Both these birds are probably exclusively maritime in their habits, and are only accidentally seen so far from the coast.

COLYMBUS ADAMSI, Gray.

Besides the Black-throated and Red-throated Divers, I was frequently told of a still larger species of *Ga-gar′-a* with a *white bill* which frequented the lakes on the tundra.

COLYMBUS ARCTICUS, Linn.

The Black-throated Diver was very common on the Yen-e-say′ from the Koo-ray′-i-ka to Gol-cheek′-a.

COLYMBUS SEPTENTRIONALIS, Linn.

The Red-throated Diver was not quite so common as the preceding species. The cries of these birds, exactly like the screams of a child in great pain, were constantly heard during the grand crash of ice in which our first shipwreck occurred.

STERNA MACRURA, Naum.

On the 6th of June I saw the first Arctic Tern, and found it abundant in various localities further north.

LARUS CANUS, Linn.

The Common Gull arrived at the Koo-ray′-i-ka on the 1st of June, and remained to breed. I got fresh eggs on the 17th of June. As in the Petchora, so also in the Yen-e-say′ valley, I noticed its somewhat singular habit of perching in trees. I did not observe this species of Gull on the tundra.

LARUS GLAUCUS, Fabr.

I did not succeed in shooting a bird of this species; but on several occasions I saw large Gulls without the black tips to the wing-feathers, which were doubtless *L. glaucus.*

LARUS AFFINIS, Reinhardt.

This yellow-legged Herring-Gull, with a mantle nearly as dark as that of *L. fuscus,* was first seen on the 31st of May. During the breaking up of the ice the wild cries of these birds were an appropriate accompaniment to the grand crash which shipwrecked us in the Koo-ray′-i-ka. As the ice broke up further north these Gulls left us; and we saw them no more until we reached lat. 69°. Here a large colony frequented an island in the river where several parties of Russians and Ost′-yaks were fishing. This colony was almost entirely composed of birds in immature plumage; and there was nothing to lead us to suppose that any of them were breeding. Between lat. 70½° and 71½° we passed several breeding-stations of these birds, where it was a very rare thing to see a Gull in immature plumage. I should have been too late to secure fresh eggs of this species; but, fortunately, I had chartered a Russian at Brek′-off-sky and a Samoyede at Gol-cheek′-a to collect for me, and at each station I found a large basket of unblown eggs. As might have been expected, they vary somewhat in size and colour, and are not distinguishable from eggs of *L. fuscus* or *L. argentatus.* So far as it is possible to compare the cries of birds from memory, I may confidently affirm that these do not vary from those of *L. argentatus* or *L. cachinnans.*

When I was in St. Petersburg Russow was kind enough to unpack for me the whole of the splended series of Gulls in the Museum, which gave me an opportunity of obtaining some valuable information as to the geographical distribution of these closely allied species. *Larus affinis* appears to breed in the extreme north of Europe and Asia from the White Sea to Kamchatka. It has been obtained in the breeding-season on Bear Island, south of Solovetsk, in the White Sea (*Midd.,* in Mus Petr.), on the Petchora (*Seebohm & Harvie Brown*), on the Ob (*Finsch & Brehm*), on the Yen-e-say′, on the Boganida and Taimyr, near the North-east Cape (*Midd.,* in Mus. Petr.), and in Kamchatka (*Kittlitz*, in Mus. Petr. fide *Schrenk*). In spring and autumn on migration it has been found in the Caspian Sea (*Karélin*, in Mus. Petr.) and at Ayan, in the Sea of Okotsk (*Wosnessensky*, in Mus. Petr.). The type of this species is a skin from Greenland; and it is described as not uncommon at St. Michael's, in Alaska; but until we have evidence that it breeds on the American continent we can scarcely consider it as more than an occasional visitant there.

LARUS CACHINNANS, Pall.

Larus affinis is, *par excellence*, the Arctic Herring-Gull. *L. cachinnans* might with equal propriety be called the Lake Herring-Gull. It appears to confine itself during the breeding-season to lakes, rivers, and inland seas. It is the common Herring-Gull of the Mediterranean, the only species known at St. Petersburg, and the only species known to breed in the Caspian Sea (*Radde & Karélin*, in Mus. Petr.). It is found in the breeding-season near the Aral Sea (*Severtzoff*, in Mus. Petr.), Lake Saissan (*Finsch & Brehm*), S.E. Mongolia (*Prejevalsky*, in Mus. Petr.), Lake Baical and the island of Olchon, in a lake to the south-east (*Radde*, in Mus. Petr.). This Gull has yellow legs when fully adult, with a mantle intermediate in shade between that of *L. argentatus* and *L. affinis*. Mr. Howard Saunders has also pointed out to me the difference in the respective lengths of the tarsus and the middle toe, including the claw. In *L. fuscus* and *L. affinis* the tarsus is longer than the foot, whereas in *L. cachinnans* and *L. argentatus* the contrary is the case. In *L. fuscus* and *L. affinis* it is the exception for the second primary to have a subterminal white spot, whilst in *L. cachinnans* and *L. argentatus* it is the rule.

In the St.-Petersburg Museum there are three skins of *L. occidentalis* collected by Wosnessensky on the coast of Southern California. This is a large form of *L. fuscus*, with a short thick bill, very dark mantle, no wedge-shaped markings on the primaries, and, as far as one can judge from dried skins, very yellow legs. There is also a skin obtained by Wosnessensky at Kodiak, on the North-American coast, which looks like a skin of *L. argentatus*.

[To be continued.]

XII.—*On a Collection of Birds made by the late Mr. E. C. Buxton in Western Java.* By Francis Nicholson, F.Z.S.

The unfortunate dispersion of Mr. Wallace's valuable Javan collection without the publishing of a scientific record of its contents has been a source of regret to many ornithologists, since no complete list of the birds of this island has yet been compiled. Feeling sure that the time is not far distant when a work on the Javan avifauna will be a necessity, I venture to put forward a small contribution to this work, by giving a list of the birds collected for me in Western Java by my late friend Mr. E. C. Buxton. The collection was made in that part of Java opposite Lampong, in Sumatra, where Mr. Buxton obtained the important collection of skins described by the Marquis of Tweeddale in 'The Ibis' for 1877, p. 283. Owing to want of time the birds were put into spirit, but have been cleverly manipulated since their arrival in England, and have turned out very fair specimens. I have followed Lord Tweeddale's paper as closely as possible, desiring to make the present essay, an account of Mr. Buxton's Javan collection, a supplement to his Sumatran collection described by the Marquis, to whose labours I am substantially indebted. I have also to thank Mr. Bowdler Sharpe, of the British Museum, for assisting me in my identifications; and I have placed a complete series of the skins in the collection of that institution. I have also given references to Count Salvadori's 'Uccelli di Borneo,' by far the most complete work on the avifauna of the Indo-Malayan region.

Tiga javanensis.

Tiga javanensis (Ljungh), Salvad. Ann. Mus. Genov. v. p. 54; Tweedd. Ibis, 1877, p. 288.

Meiglyptes tristis, Horsfield, Tr. Linn. Soc. xiii. p. 177.

A pair of birds, concerning which a few remarks are necessary. I compared them with the series of *Meiglyptes* in the British Museum; and I cannot allow that, if, as seems certain, I have before me the true *M. tristis* of Horsfield, the Malaccan and Bornean birds usually called *M. tristis* are really the same as the Javan species. The latter has a totally black under surface from the lower throat to the abdomen, and has the lores and region of the eye finely vermiculated, or lined with black and white, like the rest of the face, whereas the Malayan birds have a uniform fulvous space in front of the eye.

Professor Sundevall, in his 'Conspectus Avium Picinarum' (p. 92), thought that the differences might be due to age; but he was acquainted with the true *M. tristis* from Java, a specimen of which he saw in the Berlin Museum, and he was evidently inclined to consider it a distinct bird. I think there can be no doubt on the subject, from a comparison of specimens; and that the Malaccan and Bornean birds must be separated as *M. grammithorax*, Malherbe.

DENDROTYPES ANALIS.

Dendrotypes analis (Horsf.), Salvad. *t. c.* p. 40; Tweedd. *t. c.* p. 290.

A large series, apparently showing that the species is very common in this part of Java.

JYNGIPICUS FUSCO-ALBIDUS.

Yungipicus fusco-albidus, Salvad. *t. c.* p. 42; Tweed. *t. c.* p. 290.

Several specimens.

PALÆORNIS JAVANICUS.

Palæornis javanica (Osb.), Salvad. Ucc. Born. p. 25.

An adult specimen.

MEGALÆMA LINEATA.

Megalæma lineata (Vieill.), Marshall, Monogr. Capit. pl. xxxvii.

Two adult specimens.

XANTHOLÆMA ROSEA.

Xantholæma rosea (Dumont), Marsh. Monogr. Capit. pl. xliii.; Tweedd. *t. c.* p. 299.

Two adult and two younger birds. The young plumage is not described in Captain Marshall's work. It is not unlike that of the adults, but more dingy green, the throat being yellowish with an orange-red wash; the frontal patch and red facial markings are distributed as in the old bird, but are paler and more orange; the hinder crown and sides of the face are greenish, like the back, the black markings being only indicated by a more dusky shade. Perhaps the best-marked difference consists of the yellow margins and tips to the wing-coverts and secondaries.

ARACHNOTHERA LONGIROSTRA.

Arachnothera longirostra (Lath.), Salvad. *t. c.* p. 186; Tweedd. *t. c.* p. 300; Shelley, Monogr. Cinnyr. pt. vi.

The single example sent by Mr. Buxton seems to be rather larger than Malaccan and Bornean specimens; but Lord Tweeddale has already remarked on the variability in size shown by this species, and Captain Shelley unites the Javan birds with those from the above-named localities.

CINNYRIS PECTORALIS.

Cinnyris pectoralis (Horsf.), Shelley, Monogr. Cinnyr. pt. vi.

Arachnechthra pectoralis (Horsf.), Tweedd. *t. c.* p. 302.

Cyrtostomus pectoralis, Salvad. *t. c.* p. 170.

Three specimens.

ANTHREPTES MALACCENSIS.

Anthreptes malaccensis (Scop.), Salvad. *t. c.* p. 178; Tweedd. *t. c.* p. 302; Shelley, Monogr. Cinnyr. pt. vii.

An interesting series in different stages of plumage.

ANTHREPTES PHŒNICOTIS.

Anthreptes phœnicotis, Temm.; Shelley, Monogr. Cinnyr. pt. vii.

Chalcoparia singalensis, Gm.; Tweedd. *t. c.* p. 303; Salvad. *t. c.* p. 180.

A female specimen.

DICÆUM FLAMMEUM.

Dicæum flammeum (Sparrm.); Salvad. *t. c.* p. 169; Tweedd. *t. c.* p. 302.

A very large series, illustrating the changes of plumage. In the British Museum are two specimens from Banjermassing, collected by Motley, this locality not being given by Count Salvadori in the 'Uccelli di Borneo.'

ZOSTEROPS BUXTONI, n. sp.

Zosterops lateralis, Hartl. J. f. O. 1865, p. 15 (nec Sundev., nec Lath.).

Two specimens, agreeing with Dr. Hartlaub's description (*l. c.*). It would appear that the name *lateralis* has been given three separate times to a *Zosterops*. The bird which should really stand as *Z. lateralis* is the New-Zealand species (*cf.* Buller, B. N. Zealand, p. 80; Finsch, J. f. O. 1872, p. 108). In 1850 the late Professor Sundevall described a second *Z. lateralis* from South Africa; and this was renamed by Dr. Hartlaub (J. f. O. 1865, p. 8) *Z. sundevalli*; and in the same paper the latter author described *Z. lateralis* of Temminck (MS. in Mus. Lugd.)—apparently for the first time, as I find no mention of the bird in Bonaparte's 'Conspectus.' Dr. Hartlaub remarks that Sundevall's name *lateralis* should give place to Temminck's, which was given earlier; but this would hardly be the case, as Sundevall's species was properly described, while Temminck's name would seem to depend merely on a MS. title in the Leyden Museum. It is certain, however, that both these names are preoccupied by the *Sylvia lateralis* of Latham; and as the Javan species appears to be without a specific title, I would propose to call it after Mr. Buxton, whose zeal in the cause of science was well known to my readers, and who met with his death on the Niger in August last, where he had gone for the purpose of collecting.

DENDROPHILA FRONTALIS.

Dendrophila frontalis (Horsf.), Salvad. *t. c.* p. 161; Sharpe, Stray Feathers, 1875, p. 436.

Three specimens.

PARUS ATRICEPS.

Parus atriceps, Horsf.; Tweedd. *t. c.* p. 304.

A considerable series.

ÆGITHINA SCAPULARIS.

Ægithina scapularis (Horsf.), Tweedd. *t. c.* p. 304.

Jora scapularis, Salvad. *t. c.* p. 190.

A large series, apparently identical with Bornean specimens.

PYCNONOTUS CROCORRHOUS.

Pycnonotus crocorrhous, Strickl.; Gray, Hand-l. B. i. p. 270, no. 3958.

Four specimens.

PYCNONOTUS ANALIS (Horsf.).

Ixus analis (Horsf.), Tweedd. *t. c.* p. 306; Salvad. *t. c.* p. 197.

Four specimens.

ALCURUS OCHROCEPHALUS.

Alcurus ochrocephalus (Gm.), Tweedd. *t. c.* p. 306.

Trachycomus ochrocephalus, Salvad. *t. c.* p. 196.

One specimen.

ORIOLUS MACULATUS.

Oriolus maculatus, Vieill.; Sharpe, Cat. B. Brit. Mus. iii. p. 199.

Oriolus coronatus, Sw.; Tweedd. *t. c.* p. 308.

A single specimen in young plumage, and still retaining marks of striæ on the breast, the horseshoe-mark dingily indicated.

DRYMOCATAPHUS CAPISTRATUS.

Drymocataphus capistratus (Temm.), Salvad. Ucc. Born. p. 219.

One specimen, exactly exhibiting the characters mentioned by Count Salvadori (*l. c.*) as distinguishing the Javan species from its allies, *D. capistratoides* and *D. nigrocapitatus*. A series of the two latter are in the British Museum; and I have compared Mr. Buxton's specimen with them.

TRICHOSTOMA PYCA (Boie).

Macronus pyca (Boie), Gray, Hand-l. B. i. p. 318, no. 4758.

One specimen, agreeing with the specimen so named in the British Museum, and enumerated by the late Mr. G. R. Gray in the 'Hand-list.'

CITTOCINCLA MACRURA.

Cittocincla macrura (Gm.), Tweedd. *t. c.* p. 309.

Four specimens.

COPSYCHUS MUSICUS.

Copsychus musicus (Raffl.), Tweedd. *t. c.* p. 309.

The Marquis of Tweeddale is no doubt right in adding *C. problematicus* of Sharpe (Ibis, 1876, p. 36) to this species, the latter gentleman having evidently overlooked Lord Tweeddale's previous remarks on this subject. Mr. Buxton's present collection contains a very large series, including the young birds from the nestling stage upwards, as well as several adult individuals of both sexes. This series, which is now in the British Museum, will prove useful to anybody engaged in working out this puzzling genus. I must mention also that there are two birds in the series which seem referable to *C. amœnus* of Horsfield, but are not so entirely black underneath as adult individuals of that species. The question requires a longer period of study than I am able to give during my hurried visits to London; but I must confess myself rather puzzled by the two specimens in question, which seem to indicate either a complete gradation from *C. musicus* to *C. amœnus*, or else hybrids between the two species.

HENICURUS LESCHENAULTI.

Henicurus leschenaulti (Vieill.); Elwes, Ibis, 1872, p. 258; Tweedd. *t. c.* p. 310.

One specimen.

PRINIA FAMILIARIS.

Prinia familiaris, Horsf.; Tweedd. *t. c.* p. 311.

ORTHOTOMUS SEPIUM.

Orthotomus sepium (Horsf.), Sharpe, Ibis, 1877, p. 115.

Examples of old and young birds.

BUCHANGA LEUCOPHÆA.

Buchanga leucophæa (V.), Tweedd. *t. c.* p. 315, et Ibis, 1878, p. 75.

Buchanga cineracea (Horsf.), Sharpe, Cat. B. Brit. Mus. iii. p. 251.

Two specimens.

LALAGE TERAT (Bodd.).

Lalage dominica (Müll.), Tweedd. *t. c.* p. 313.

Several specimens.

PERICROCOTUS PEREGRINUS.

Pericrocotus peregrinus (L.), Tweedd. *t. c.* p. 315; Hume, Str. F. 1877, p. 179.

Examples of both male and female. The specimens are very dark-coloured, as in the South-Indian birds.

HEMIPUS OBSCURUS.

Hemipus obscurus (Horsf.), Sharpe, Cat. B. Brit. Mus. iii. p. 305.

ARTAMUS LEUCORHYNCHUS.

Artamus leucorhynchus (L.), Tweedd. Ibis, 1878, p. 383.

Artamus leucogaster (Val.), Sharpe in Rowley's Orn. Misc. iii. p. 184.

Mr. Sharpe informs me that he considers that Lord Tweeddale is probably correct in his argument with regard to the oldest name of this species; and I accordingly follow him instead of Mr. Sharpe's monograph.

LANIUS BENTET.

Lanius bentet, Horsf.; Salvad. *t. c.* p. 158.

A single adult specimen.

CYORNIS ELEGANS, Temm.

Cyornis elegans, Salvad. *t. c.* p. 130.

A female in red plumage, agreeing with one of Mr. Wallace's skins from Java in the British Museum, determined by him as the hen of *C. banyumas*; Mr. Sharpe, however, considers it to be the female of *C. elegans*.

RHIPIDURA JAVANICA (Sparrm.).

Leucocerca javanica, Salvad. *t.c.* p. 135; Tweedd. *t.c.* p. 316.

A large series, containing young birds from the nestlings up to the adult.

MUNIA LEUCOGASTROIDES.

Munia leucogastroides, Moore; Tweedd. *t. c.* p. 318.

ERYTHRURA PRASINA.

Erythrura prasina (Sparrm.), Salvad. *t. c.* p. 268.

CALORNIS CHALYBEUS.

Calornis chalybeus (Horsf.), Salvad. *t. c.* p. 271; Tweedd. *t. c.* p. 318.

GEOPELIA STRIATA.

Geopelia striata (L.), Salvad. *t. c.* p. 298; Tweedd. *t. c.* p. 322.

GALLUS VARIUS.

Gallus varius (Shaw), Elliot, Mon. Phasianidæ, ii. pl. XXXV.

A hen of this Jungle-Cock.

XIII.—*Note upon Three American Raptorial Birds apparently new to Science.* By JOHN HENRY GURNEY.

(Plate III.)

I AM indebted to the kindness of Messrs. Salvin and Godman for the opportunity of describing, from specimens in their collection, three species of American birds of prey which, after careful examination by Mr. Salvin and myself, appear to us to be new to science.

The first of these, of which the Norwich Museum also possesses a specimen, is a *Micrastur* from the forest-region of Panama, which resembles in its dimensions and conformation *Micrastur melanoleucus** (Vieill.) = *brachypterus* (Temm.), but differs from that species in the coloration of the underparts, and also in the total absence, both in the immature and in the adult plumage, of any nuchal collar, either white or rufous.

The specimen in the Norwich Museum is wholly in immature plumage; that belonging to Messrs. Salvin and Godman is in partially immature dress, but has acquired a sufficient portion of the adult plumage to indicate the character of the fully adult dress; unfortunately, in neither instance has the sex been recorded.

The following are the principal measurements of the two specimens, in inches and tenths.

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* I agree with Mr. Ridgway in considering that the specific name *melanoleucus* is probably that which is most correctly applicable to this species (*vide* Proc. Ac. Nat. Sc. Philadelphia, 1875, pp. 470, 484, also Ibis, 1875, p. 3).

	In the Collection of Messrs. Salvin and Godman.	In the Norwich Museum.
Culmen, exclusive of cere	1·0	1·1
Wing from carpal joint ....,	10·7	11·0
Tail............................	10·8	10·9
Tarsus	3·6	3·4
Middle toe *s. u.*..................	2·1	2·1

It may be convenient, in the first instance, to describe the immature Norwich specimen, in which the entire upper surface is of a uniform and unbroken dark brown, with the following exceptions, viz.:—a slightly darker shade of brown on the nape; a few indistinct fulvous-brown spots on both webs of the greater wing-coverts, bastard wing, and tertials, those on the inner webs of the feathers being paler than those on the outer web; similar but larger spots, assuming the character of transverse bars, on both webs of the primaries and secondaries; and white spots on both webs of the feathers of the upper tail-coverts, taking the form in those next the tail of three transverse white bars, divided by the dark shaft of the feathers, the spots on the feathers next the rump being smaller and tinged with fulvous.

The tail is of a somewhat darker brown than the back, with four white transverse bands, divided by the dark shafts of the feathers, and also narrowly tipped with white, the lateral rectrices with a concealed white bar near the base.

The chin, throat, and upper breast are of a whole-coloured dark brown, of a similar hue to the nape; the lower breast, abdomen, flanks, and thighs of the same brown tint, but with each feather exhibiting two or three pairs of lateral spots and a narrow tip, all of which are white, with more or less of an ochraceous tinge; the under tail-coverts are similar, but with the white spots larger and broadened into transverse bars; the under wing-coverts are a whole-coloured dark brown, like the breast, except the lowest feathers, which exhibit white spots in pairs; the undersides of the quill-feathers of the wing are of a similar but duller brown, transversely and more or less regularly barred with black.

The bill is slaty black, slightly mottled with dirty white about the edges of both mandibles.

The tarsi and feet are olive-brown, with a tinge of yellow towards the extremities of the toes.

The specimen in the collection of Messrs. Salvin and Godman, though older than that in the Norwich Museum, retains nevertheless considerable portions of the immature plumage, which agree with that of the younger bird, except that the fulvous-brown spots on the wing-coverts and tertials are somewhat larger and more conspicuous; but the adult plumage is showing itself on the head, back, upper breast, and throat, all of which are in course of change from dark brown to coal-black; many feathers of the latter colour have appeared on the crown of the head; and it entirely pervades the hinder head, nape (on which there is no trace of a nuchal collar), interscapular region, sides of the neck, throat, and also the upper breast, with the exception of a very few scattered feathers of dark brown, the remains of immature plumage not yet moulted from that part.

Some new scapular feathers which have made their appearance are also wholly black; and some new secondary wing-feathers are black, with the exception of from three to four white transverse bars on the inner web; the flanks and lower breast exhibit a few new feathers, which are black, with, in some instances, two pairs of white spots, divided by the dark shaft of the feather, in others a smaller number, one such feather showing only a single white spot on one web.

The remaining portions of the plumage in this specimen are still immature.

The bill is dark slate-colour, with the exception of the base of the lower mandible, which is a yellow horn-colour; and a similar yellow tint pervades the tarsi and feet.

The prevailing dark hues of the plumage of this *Micrastur* have suggested for it the specific name of "*amaurus*," from the Greek ἀμαυρὸς, dark.

The second species which I have to describe is a *Morphnus* received from Mr. C. Buckley in December 1877, and obtained by him at Sarayacu, in Ecuador.

This specimen, which is evidently adult, or very nearly so, is in the collection of Messrs. Salvin and Godman, and is the only example of the bird which I have seen.

In conformation and dimensions it closely resembles *Morphnus guianensis*; but it differs from that species in several important details of marking and coloration, as will appear from the following description.

The sides of the head are dark slate-colour, and the crown the same, but tinged with blackish, both being darker than the corresponding parts in *M. guianensis*[*]; but the dark mark behind the eye, which is conspicuous in the latter species, is in the present one scarcely distinguishable from the slate-coloured plumage which surrounds it; the feathers of the occipital crest are blackish brown, with mottled white bases, and also with narrow whitish tips, except one feather, which (as is usually the case in *M. guianensis*) is much longer and larger than the other portions of the crest, and in which the white tip is wanting.

The mantle is blackish brown, with concealed mottled white bases to the feathers; the bird seems to have been killed whilst moulting, the old feathers being of a dark brown, whilst the newer are as black on their exposed portions as is the case in the adult of *M. guianensis*; the lesser wing-coverts are composed of such black feathers with narrow white tips as in *M. guianensis*; the feathers of the median coverts are, in a few instances, black where exposed, but in most cases dark brown, both being crossed with from three to four somewhat irregular white bars, which are much more conspicuous than the corresponding markings in *M. guianensis*.

The feathers of the bastard wing are blackish, showing on the inner web two broad bars of dark grey, marbled with a still darker shade of the same.

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[*] The plumage of *M. guianensis*, to which I refer for comparison, is, in every instance, that of the fully adult bird. As, I believe, the colours of the soft parts in *M. guianensis* have not been recorded, I may mention that an immature bird in change, which was recently living in the Gardens of the Zoological Society, had the irides pale grey, the cere and skin near the eye slate-colour, and the tarsi and feet yellow.

The primaries and secondaries are black, with the exception of three broad transverse bars of grey, mottled with a darker hue of the same, and browner in the older feathers than in the new, and also excepting portions of the inner webs of these feathers, which are white varied with dark grey; the tertials are similarly variegated on the inner webs, where, however, the white portions occasionally assume the form of imperfect transverse bars; but the grey cross bars, which are conspicuous on the primaries and secondaries, are absent from the tertials.

The feathers of the upper tail-coverts are brownish black, with inconspicuous white bases and tips, but are for the most part also crossed by two white transverse bars, as in *M. guianensis.*

The tail is blackish brown, crossed by four bars of white, mottled and tinged with brownish grey; the narrowest of these bars is that next the tail-coverts; and they successively become broader as they approach the end of the tail, which exhibits a very narrow white tip; a fifth similar but concealed bar exists near the base of the outer rectrices—the number of pale bars coinciding with those of an immature, but not very young, specimen of *M. guianensis* which I have examined, but being one less than I find in a fully adult example of that species.

The feathers of the chin, instead of being pure white as in *M. guianensis,* are of a greyish white, with dark shaft-marks; and the plumage of the throat and upper breast is very much darker than in that species, the feathers of the throat being slaty black, with very narrow whitish tips, and the upper breast being entirely black, except that some of the feathers which are adjacent to the throat have very slight whitish edgings so narrow as to be scarcely perceptible; the lower breast, abdomen, tibiæ, and under tail-coverts are conspicuously barred with transverse bands, alternately white and black, the black being, for the most part, slightly broader than the white, whereas in *M. guianensis* the white transverse bands are considerably broader than the dark, and the latter are only a pale brown, instead of a decided black as in the present species.

The under wing-coverts, which are pure white in *M. guianensis,* are crossed, in the bird now under consideration, with alternate bars of black and white, like the lower breast, except that on these coverts some of the white bars are broader than the black, especially on the feathers overlying the bases of the primaries.

The following are the principal measurements of the specimen just described :—

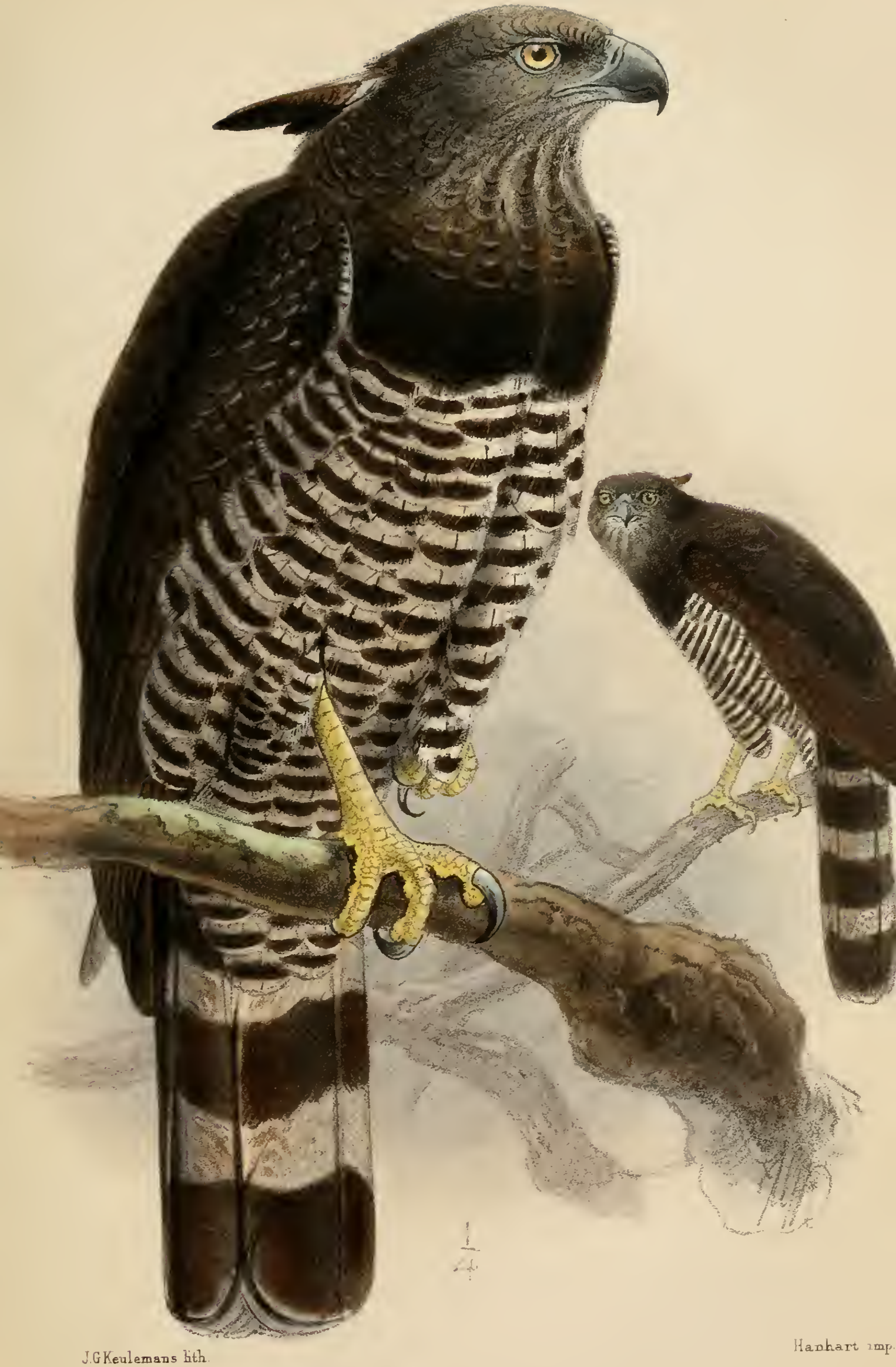
	inches.
Longest feather of occipital crest	4·5
Culmen without the cere	1·6
Wing from carpal joint	18·2
Tail	15·6
Tarsus	4·1
Middle toe *s. u.*	2·1

I propose to call this fine species *Morphnus tæniatus,* with reference to the transverse bars on the lower breast and adjacent parts, which form so conspicuous a feature in the coloration of its plumage.

The annexed figure (Pl. III.) will afford a ready means of recognizing this well-marked species.

The third Raptorial bird that I propose to describe is a very fine Buzzard, which, on account of the variegated character of its plumage, I would call *Buteo pœcilochrous,* from the Greek *ποικιλόχροος*.

The only example of it that I have seen is in the collection of Messrs. Salvin and Godman, and was received from Mr. Buckley in December 1877, who obtained it at Yauayacu, in the State of Ecuador. It bears a considerable resemblance on its upper surface to the adult female of *Buteo erythronotus,* and on its under to some examples of *Buteo hypospodius*; but in most of its dimensions, and especially in the length of the wing, it exceeds both these species, as will be seen by the following table of measurements in inches and tenths :—



J.G Keulemans lith.

Hanhart imp.

MORPHNUS TÆNIATUS.

AMERICAN MUSEUM
CENTRAL PARK,
NEW YORK.
OF NATURAL HISTORY.

	Culmen without cere.	Wing from carpal joint.	Tail.	Tarsus.	Middle toe *u. s.*
B. pœcilochrous (sex unknown)	1·1	19·0	9·7	3·4	2·0
Seven females of *B. erythronotus* in the Norwich Museum and Collection of Messrs. Salvin & Godman........	1·1–1·2	16·4–16·9	8·5–9·3	3·1–3·4	1·5–1·8
Six specimens of *B. hypospodius,* as given in 'The Ibis' for 1876, p. 76	1·1	16·5–17·7	6·8–7·1	3·4–3·6	1·5–1·75

The following are the relative lengths of the first six primaries in Messrs. Salvin and Godman's specimen of *B. pœcilochrous*:—the 4th is the longest, the 3rd the next, then successively the 5th, the 2nd and 6th, which are equal, and the 1st.

The coloration of this specimen may be thus described:—The crown and sides of the head are of a slaty black; the nape, upper scapulars, and interscapulars are rich rufous, varied with slaty black shaft-marks, which, on most of the feathers, and especially on those of the nape, are of considerable breadth; the lower scapulars are dark slate-colour, transversely barred with white on the basal portion, and elsewhere irregularly edged, barred, and sometimes spotted, with rufous; the wing-coverts and tertials are dark grey, irregularly barred on the basal portion with white transverse markings, and on the terminal and more exposed moiety of the feather with similar but somewhat more regular bars of slaty black; the secondaries are grey, barred with slaty black, and mottled with white at the tip, and also on the outer edge of the inner web; the primaries are coloured similarly to the secondaries, but of a darker grey, especially on the terminal portion, and with only very narrow and inconspicuous pale tips; the back is dark slaty brown, edged with rufous; the feathers on the rump are similar, except that they are irregularly barred with white; the upper tail-coverts nearest to the body are greyish white, with slaty black transverse bands; those next the tail are pure white, with transverse bands similarly coloured but narrower; the upper surface of the tail is white, crossed by narrow dark grey bars, twelve in number on the central, and fourteen on the exterior pair of rectrices; below the lowest of these transverse bars are three subterminal bands, the uppermost white, the next and broadest black, and the third grey, the tip of the tail being white.

The cheeks, chin, and throat are a dark slate-colour, as is also the region of the crop, with the exception, as regards the latter, of irregular white tips to some of the feathers; the breast, abdomen, flanks, tibiæ, and under tail-coverts, as also the under wing-coverts and axillary plumes, are all alternately barred with transverse markings of white and slate-colour, this barring is finer and less coarse on the tibiæ than elsewhere, and is most regular on the under wing-coverts, the white predominates on the under tail-coverts, and the slate-colour on the breast; but it is there mingled, on many of the feathers, with rich rufous, and these particoloured feathers are only slightly tipped with white; a faint tinge of rufous also appears on some of the feathers of the abdomen.

XIV.—*Note on an unusually rufescent Example of* Archibuteo hemiptilopus, *Blyth*. By John Henry Gurney.

A specimen of *Archibuteo hemiptilopus*[*] having been lately added to the Norwich Museum, which presents a much more rufous aspect of plumage than any example which had previously come under my notice, I think it desirable to place some particulars respecting it on record in the pages of 'The Ibis.'

It was obtained in Thibet in September 1874, and passed into the hands of Mr. Mandelli, and from him, by exchange, into those of my late valued friend Mr. Andrew Anderson, upon whose decease it was acquired by the Norwich Museum.

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[*] I use Mr. Blyth's specific name for this Buzzard for the reason which I have already given in 'The Ibis' for 1876, p. 371.

The sex of this specimen has unfortunately not been recorded; but the following are its principal measurements:—wing from carpal joint 18·4 inches, tail 10·8, culmen without the cere 1·05, tarsus 3·3, middle toe *s. u.* 1·5.

In coloration and markings this example bears a singular resemblance to some of the more rufous specimens of the North-American *Buteo calurus,* Cassin, for which, but for its plumed tarsi and somewhat longer wings, it might be readily mistaken.

The following is a description of the plumage of this specimen of *Archibuteo hemiptilopus.* The crown of the head and the mantle are dark chocolate-colour, with some feathers on the sides of the crown narrowly, and the feathers of the nape and interscapular region broadly, edged with rich but not very dark rufous; the tertials are transversely barred with white and dark brown, the latter spreading in some feathers over the outer web to the exclusion of the white; the secondaries are chocolate-brown, but with the greater part of the exterior portion of the inner web white, the entire feather being crossed by transverse bars of dark brown; but both the secondaries and the darker tertials have slight whitish tips; the primaries are dark grey on the upper portion of the outer web, but black towards the tip on both webs, the basal portion of the inner web is white, and is separated by a smaller brown space from the black tip; the upper tail-coverts are transversely barred with dark chocolate and rufous in alternate but somewhat irregular markings; the central pair of rectrices have the sides dark brownish grey, shading gradually into white towards the centre of the feather, which has a white shaft, the end of the feather being tinged with bright rufous for about two inches from the tip upwards, and both webs being crossed with eleven irregular transverse bars of dark greyish brown; the lateral rectrices are similarly coloured and marked, except that the inner webs are white, tinged with rufous towards the tip, and there only, on that web, exhibiting the transverse brown bars.

The sides of the head are dark slaty brown, with slight indistinct rufescent shaft-marks; the chin is white, interspersed with dark brown feathers, tinged with rufous; the upper breast is bright but not dark rufous, interspersed with dark brown shaft-marks to each feather, and a similarly coloured irregular central spot on most of them; between the upper and lower breast are a few white feathers, slightly tinged with rufous towards the tip, and sparsely speckled with dark brown; the lower breast and abdomen are transversely marked with alternate bars of rufous and dark brown; but on some of the feathers whitish bars appear in the place of the rufous ones; the feathers of the flank are dark brown, tipped and in some cases crossed also with rufous; the tibial and tarsal feathers are dark brown slightly tipped with rufous; the under tail-coverts are white tinged with rufous, especially towards the ends of the feathers; the axillary plumes are rufous brown with irregular white transverse bars; the under wing-coverts are dark brown, but the smaller feathers are broadly edged, some with white, but others with rufous, the latter preponderating.

XV.—*Notes on Collections of Birds sent from New Caledonia, from Lifu (one of the Loyalty Islands), and from the New Hebrides by E. L. Layard, C.M.G. &c.* By H. B. Tristram, F.R.S.

(Plates IV.–VI.)

I have recently received from Mr. Layard very interesting collections from the above-named localities, comprising the types of many of his new species, on which I propose to offer a few remarks, reviewing the collections in geographical order.

From New Caledonia I find:—

1. **Falco melanogenys**, Gould.

This Mr. Gurney pronounces a typical specimen. It is the one referred to by Mr. Layard (Ibis, 1878, p. 252).

2. **Urospizias approximans** (V. & H.).

Three specimens from New Caledonia, all marked female. One in very full adult plumage, with close and rich transverse barrings on all the lower surface, the upper surface very dark and uniform; the barrings on the rectrices almost obliterated. The other birds are in younger plumage. If the sexes are correctly marked, these examples are considerably smaller than specimens from Tasmania, in length of tarsus, tail, and wings. They are the first Mr. Layard has met with in New Caledonia.

3. STRIX DELICATULA, Gould.

4. COLLOCALIA LEUCOPYGIA, Wall.

5. NYMPHICUS CORNUTUS (Gm.).

On comparing specimens with Gmelin's description, there can be no doubt that his *Psittacus caledonicus* is the immature, not the female, of *N. cornutus.* The adult female is crested, though the plumes are shorter than in the male.

6. CUCULUS BRONZINUS, G. R. Gray.

I cannot discriminate the New-Caledonian bird from *C. simus,* Peale, of Fiji, except by the aid of a well-subdivided scale. The barring on the inner webs of the tail-feathers in the former is wider and deeper than in *C. bronzinus*; and it is altogether a trifle smaller. Both are well distinguished from *C. cineraceus,* Vig. & Horsf.

7. CHALCITES LUCIDUS (Gm.).

I have compared four specimens, marked by Mr. Layard as *C. basalis,* with Australian examples of that Cuckoo. They are certainly distinct; and all belong to the large broad-billed species known as *C. lucidus,* Gm. But if, as I believe, the New-Zealand bird, to which Gmelin's specific name was first applied, be distinct from the Australian, then the latter must be *C. plagosus,* Lath. The New-Caledonian bird is certainly identical with the Australian species.

8. HALCYON JULIÆ, Reich.

We have here from Ansevata, New Caledonia, a specimen which ought to have come from the New Hebrides, while from the New Hebrides we have, as I have noticed in other collections from these islands, both forms (this and *H. sancta*) from the same locality. With a series of over forty specimens of these birds from various South-Sea Islands before me, I am inclined to believe that, when the synonymy is properly worked out, many so-called species will disappear. At present this group is in sad confusion. We require more data as to age and sex before we can satisfactorily decide on the variations and gradations of plumage in these birds.

9. Glycyphila fasciata (Forst.).

10. Glycyphila chlorophæa (Forst.) =*modesta*, G. R. Gr. =*caledonica*, G. R. Gr.

11. Philemon lessoni, G. R. Gr.

12. Myzomela caledonica, Forbes, P. Z. S. March 4th, 1879.

The New-Caledonian bird has always hitherto been identified with *M. sanguinolenta*, Lath.; but on comparison I find certain apparently constant differences: *e.g.* the bill is considerably longer than in the Australian specimens; and in none of the four examples before me is there any trace of the buffy white margins of the upper wing-coverts so conspicuous in the Australian birds. While these pages are passing through the press, Mr. Forbes writes to me that he considers the New-Caledonian bird sufficiently distinct to entitle it to recognition, and that he has described it a recent meeting of the Zoological Society of London.

13. Zosterops xanthochroa, G. R. Gr.

14. Turdus xanthopus, Forst.

In this Thrush there is a tendency to assume a darker plumage on the head than on the rest of the upper parts of the body. In some individuals it almost approaches a dark cap. The female has the lower parts a shade lighter than the male. The length of the wing varies much in individuals, to the extent of half an inch.

15. Gerygone flavolateralis (G. R. Gr.).

16. Myiagra viridinitens, G. R. Gr.

Represented by allied species in all the neighbouring groups, as are also the following species.

17. Myiagra caledonica, Bp.

18. Rhipidura bulgeri, Layard.

19. Rhipidura verreauxi, Marie.

20. Eopsaltria flavigastra, Verr. & Desm.

21. Eopsaltria caledonica, G. R. Gr. (=*C. variegata*, G. R. Gr.).

Mr. G. R. Gray, in his diagnosis of this species (P. Z. S. 1859, p. 162), notes various differences between the sexes, chiefly that the male has the throat white, the female pale yellow. I cannot find that any of these distinctions hold; the adults of both sexes seem exactly alike, and have the throat white with the faintest tinge of yellow.

22. Pachycephala assimilis, Verr. & Desm.

23. Pachycephala morariensis, Verr. & Desm.

There is some variation in the breadth of the black collar in the male of this species.

24. Clytorhyncus pachycephaloides, Elliot.

Mr. Layard has at last obtained this rare and curious bird. I may note, what is not mentioned by Mr. Elliot in his description, nor represented in his plate, that in the adult male the bill, bluish black at the base, has the lower half of a semitransparent horn-colour.

25. Artamus melaleucus (Forst.).

26. Lalage montrouzieri, Verr. & Desm.

Having before me a series of this bird, I observe that, while the fully adult male has no trace of any other colour than glossy black and pure white, many younger birds, marked as breeding, have a shade of chestnut on the breast, and the scapulars edged with the same. The female has the upper parts umber-brown instead of glossy black, the white breast suffused with chestnut, and the scapulars and wing-coverts edged with light chestnut. The very young birds, while the lower parts are pure white, have the back thickly barred transversely with pale chestnut, and the wing-coverts and scapulars broadly bordered with the same.

27. Campephaga caledonica, Gm.

The specimens appear identical with those from the New Hebrides.

28. Physocorax moneduloides (Less.).

In spite of "the angle at which the gonys ascends," I do think our systematists have been hard on this charming little miniature Raven in condemning him to seclusion in a genus kept to himself. This process is not far removed from subdividing the races of man by their noses.

29. Aplonis caledonica, Bp.,=*A. viridigrisea*, G. R. Gr. [? =*Coracias striatus* (Gm.)].

I feel no doubt this is the bird described by Latham and Gmelin; but as it is possible their description may apply to the Lifu species, the coloration of which is almost identical, it is perhaps better to adopt Bonaparte's name.

30. Erythrura psittacea (Gm.).

I cannot perceive any cause for splitting up the most natural genus *Erythrura*.

31. Ptilopus holosericeus, Temm.

Mr. Layard obtained this, perhaps the grandest of the *Ptilopi*, at Dombea. It appears to be very rare. The great difference in size between the male and female is very remarkable. The curious whitish bars on the secondaries of the male are traceable, but are almost obsolete in the female; and so is the black belt across the top of the abdomen.

32. Phænorhina goliath, G. R. Gr.

This gigantic *Carpophaga* was also procured at Dombea.

33. Ianthœnas hypœnochroa, Gould.

This Pigeon, originally described from the Isle of Pines, and obtained by Mr. Layard at Noumea, seems to be represented in each group by closely affine species. It may be at once distinguished from all the other species by the resplendent uniform ruddy chestnut of the whole lower plumage.

34. Rhinochetus jubatus, Verr. & Desm.

35. Larus novæ-hollandiæ, Steph.

36. Sterna gracilis, Gould.

This bird appears to be absolutely identical with our *S. paradisea**, which occurs also at the Cape of Good Hope. It was found by Mr. Layard breeding on an island off Ansevata on New-year's day. He has sent a series of the eggs with the birds.

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* [*Cf.* Saunders, P. Z. S. 1876, p. 652.—Edd.]

37. Sternula nereis, Gould.

This Tern Mr. Layard also found breeding, and has sent home the eggs with the skins.

From Lifu, Loyalty Islands, the collection contains:—

1. Trichoglossus massena, Bp., = *T. deplancii*, Verr. & Desm.

This species seems to have a wide range. Besides New Caledonia, Loyalty Islands, New Hebrides, and Solomon Isles, I have lately received it from Port Moresby, New Guinea, from Mr. Lawes. The Lifu specimens have the black bars on the breast rather narrower than the others, and the yellow of the vent and thigh-coverts slightly more orange; but individuals vary.

2. Cuculus bronzinus, G. R. Gr.

Differs in no way from New-Caledonian specimens. It was found breeding at the end of August.

3. Philemon lessoni, G. R. Gr.

4. Glycyphila chlorophæa, Forst.

5. Glycyphila satelles, sp. nov.

G. suprà olivaceo-cinerea; caudâ viridescente, remigibus et rectricibus fuscis, olivaceo marginatis; subtùs, thorace et pectore olivaceo-fuscis, nec fuscis; abdomine item flavescente. Long. tot. 5·45, alæ 2·6, caud. 2·25, rostr. a rict. ·7.

Among several specimens identical with the New-Caledonian *G. chorophæa* are others much smaller, as will be seen from the above measurements, which I have distinguished as above described. They seem to differ more from the New-Caledonian species on the one side than from the New-Hebridean on the other. The principal distinction is in the coloration of the breast and throat, which in *G. chlorophæa* and *G. flavotincta* are greyish brown, without any olive tint; but in the Lifu bird the whole of the underparts are of a uniform greenish olive, yellowish olive at the chin.

Were it not for the measurements given by Mr. Gray, I should have taken this to be his *G. poliotis*, P. Z. S. 1859, p. 160; but he makes his species considerably larger than *G. chlorophæa*, while this is much smaller.

6. Myzomela lifuensis, sp. nov.

M. ♂ nigerrimus; capite, thorace, tergo et uropygio coccineis, lineâ oculari ad nares nigrâ, rostro pedibusque nigris. ♀ tota fusca, fronte et gulâ rubidis. Long. tot. 4·25, alæ 2·3, caud. 1·9, rostr. a rictu 65.

This beautiful little species, which Mr. Layard (Ibis, 1878, p. 288) rightly conjectured would prove to be new, is, in its coloration, like *M. nigriventris* of Samoa and *M. cardinalis* of New Hebrides. It is, however, much the smallest of the group, the New-Hebridean bird being the largest, and differs from its congeners in the red of the throat and neck not extending to the breast, while the line of demarcation between the red and black is sharply drawn. In *M. cardinalis* the colours are confluent.

7. Zosterops melanops, G. R. Gr.

This, one of the most beautiful of the family, seems to be extremely scarce. The contrast of the black head and broad white eye-circle is very striking.

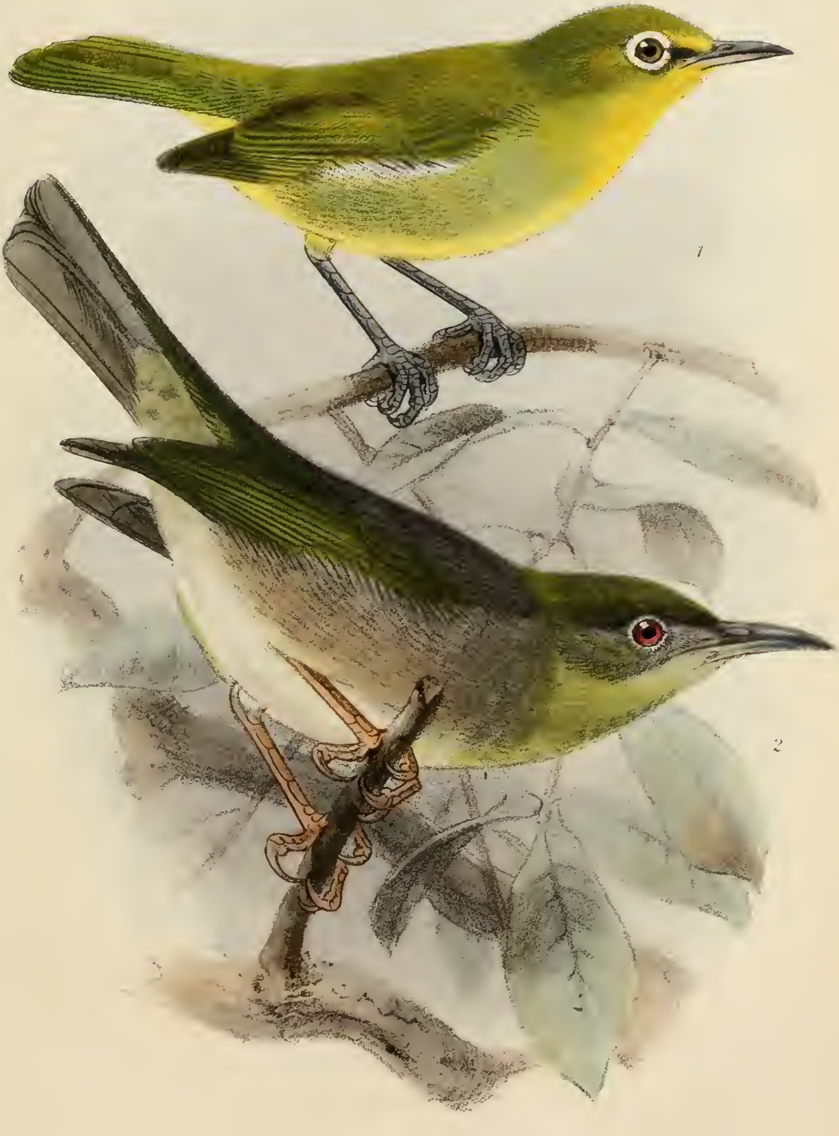
8. Zosterops minuta, Layard, Ibis, 1878, p. 259. (Plate IV. fig. 1.)

9. Zosterops inornata, Layard, Ibis, 1878, p. 259. (Plate IV. fig. 2.)

We have at length received the types of these two species, of which the Editors have kindly granted figures. *Z. minuta* is a very typical *Zosterops*, a miniature representative of *Z. flavifrons* of New Hebrides. *Z. inornata* may be considered the giant of this numerous family, and, from the very small amount of white round the eye, seems to have a strong tendency to escape towards the *Glycyphilæ*.

I append a note of Mr. Layard's, just received, on these two species.

"The acquisition of additional specimens of our new little *Zosterops minuta* enables us to add something to the description previously given. It, too, is an interesting intermediate species between the bird we identify as *Z. flavifrons* of Vaté and *Z. xanthochroa* of New Caledonia. It has the brighter yellow-green back and bright yellow of the underparts of the



J.G. Keulemans lith
Hanhart imp.

1. ZOSTEROPS MINUTA.
2 „ INORNATA.

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NEW YORK.
OF NATURAL HISTORY.

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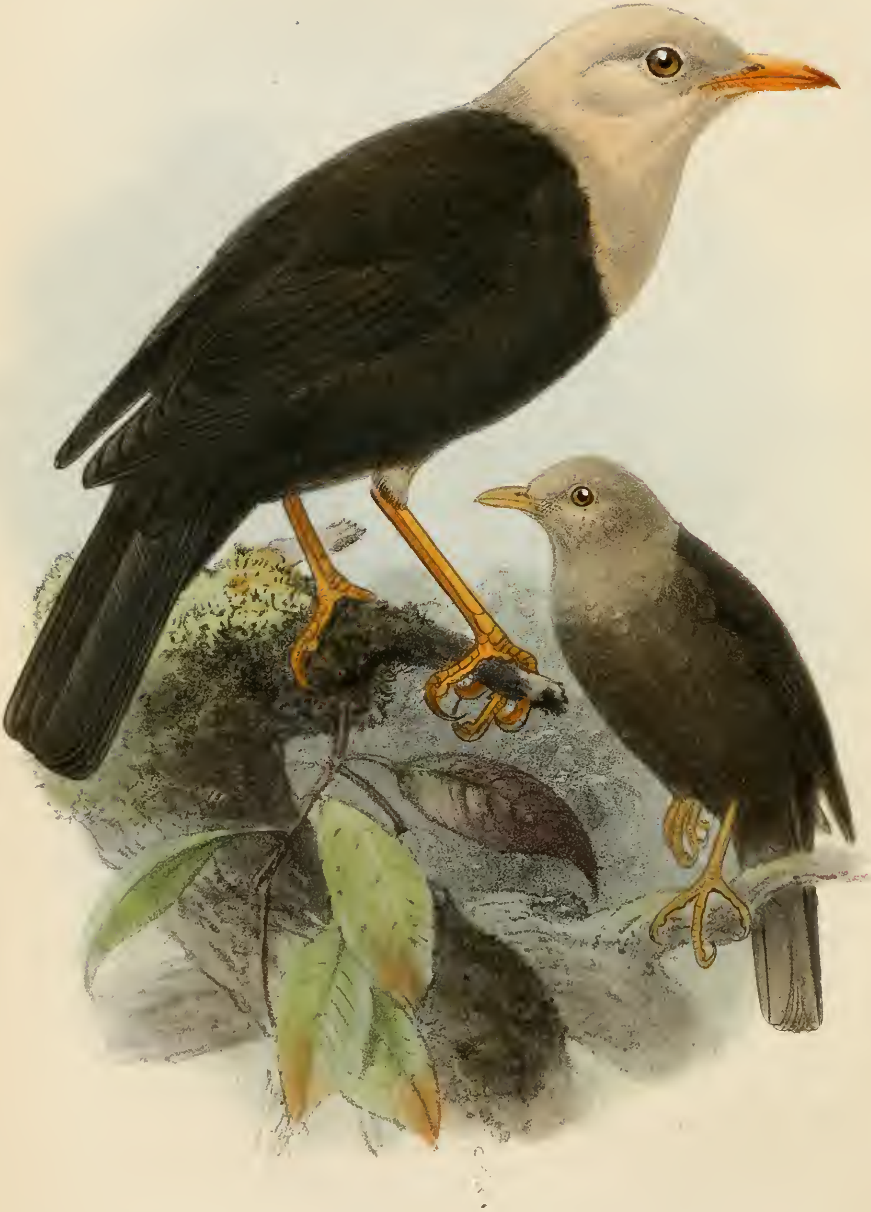
OF NATURAL HISTORY.



J. G. Keulemans lith

Hanhart imp

TURDUS PRITZBUERI.

former; but it has a grey-buff tinge on the flanks, as in *Z. xanthochroa*. Its most distinguishing characteristic however, is, a broad patch of white on each flank; this is seen, to a less extent, in *Z. xanthochroa*, but is entirely wanting in *Z. flavifrons*.

"*Z. inornata*, nobis, is certainly a good species, and cannot be confounded with *Z. melanops*, G. R. Gr., from the same place. It has no white round the eye; and its length is 5″ 6‴, of wing 2″ 11‴, as against 5″ and 2″ 4‴ of *Z. melanops*. L. L. says it is the most aberant *Zosterops* he ever met with, and that its call is a loud whistle, so like that of *Pachycephala* that he several times pursued and shot it under the impression that it was really one of those birds."

10. TURDUS PRITZBUERI, Layard, Ibis, 1878, p. 254. (Plate V.)

The types of this new and interesting Thrush, though fully described by Mr. Layard six months since, are only now received, and are represented on the accompanying plate. There is a young bird in nestling-plumage, very like a young English Blackbird. To Mr. Layard's full description I have nothing further to add*.

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* It may not be out of place to take this opportunity of giving a synopsis of the true Thrushes of the Pacific Islands, so far as our present knowledge extends. The researches of Mr. Layard have already doubled the number previously known; and we trust he may yet further succeed in enlarging the catalogue, especially as he has already been on the traces of two unknown species on the islands of Ambrym and St. Bartholomew, New Hebrides, from which archipelago we have not, as yet, a single species.

The Pacific Thrushes may be divided into two groups.

α. Brown, and generally uniform; sexes alike.

β. The body black, the head and neck frequently of a different colour.

Sect. α.

(1) TURDUS ULIETENSIS, Gm., = *T. badius*, Forst.

This, the first described from this region, is not represented, so far as I know, in any museum. It was obtained during Capt. Cook's voyage at Raiateia, one of the Society Islands. I have examined Forster's drawing in the British Museum. The species is very like *T. xanthopus* in colour, but has a brown beak and legs. If it has not been exterminated, we may hope soon to know more of it, as a collector is on his way to that group of islands.

11. Myiagra luguieri, sp. nov.

♂ & ♀. Supra tota nitidè nigro-virescens, infra gulâ et pectore splendenti-nigro-virescentibus; abdomine, subcaudalibus et subalaribus albis; rectricibus ad apicem albo marginatis, rectrice extimâ in pogonio interno albo margi-

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(2) Turdus xanthopus, Forst.

From New Caledonia. Under this also, I am afraid, must fall *T. vinitinctus*, Gould, from Lord Howe's Island. Mr. G. R. Gray remarks that the species are closely allied; and a very close and discriminating comparison, in company with Mr. Sharpe and Mr. Seebohm, has not helped us to distinguish them. We only know *T. vinitinctus* from the type pair procured by Mr. M'Gillivray. It is true the male has a rather darker head, on which Mr. Gould dwells; but so have some (not all) of the dozen or more specimens of *T. xanthopus* I have examined. In measurements they correspond, except that the wing of the Lord-Howe's-Island bird is shorter than that of any of our New-Caledonian specimens. But these vary much among themselves; and there is not so great a difference by ·15 inch between the shortest of them and the other species as there is between the longest and shortest of the New-Caledonian specimens. In both the female is a little lighter-coloured than the male.

(3) Turdus vitiensis, Layard, Ann. N. H. ser. 4, vol. xviii. p. 305.

This species is somewhat aberrant. It is not very unlike *T. rufiventris* of South America in its coloration—dark brown head and back, ashy chin and breast, and rufous abdomen. Mr. Layard found it only on Vanua Levu, Fiji.

Sect. β.

(4) Turdus vanicorensis, Quoy.

A very typical Blackbird, the smallest of the family in the Old World. Named and figured by Quoy, the bird from the Samoa Islands having been identified with it. With the latter I am familiar, but have not been able to examine a specimen from Vanikoro. The description, however, of Quoy does not fit our bird; for he speaks of the black as varying in intensity on different parts of the body, and of the lower tail-coverts being always barred with white. Now, in the seven specimens from Samoa which I have examined, there is not the faintest trace of the barring on the lower tail-coverts, nor is there any difference in the intensity of the black in either sex. Besides, knowing the limited range of these birds in this region, it is *a priori* highly improbable that the species should be identical while many islands intervene each possessing their own species. I propose, therefore, to separate the Samoan bird as

(5) Turdus samoensis, sp. nov.

T. unicolor, nigerrimus, albo nullâ parte striatus, rostro et pedibus lætè flavis. Long. tot. 7·5, alæ 3·95, caudæ 2·75, rostri a rictu 1, tarsi 1·2.

Hab. Ins. Samoa.

natâ, rostro et pedibus nigris. Long. tota 5·7, alæ 2·8, caudæ 2·96, rostri a rictu ·75, tarsi ·7.

This species is curiously intermediate between *M. viridinitens*, G. R. Gr., from New Caledonia, and *M. melanura*, G. R. Gr., from New Hebrides. In measurements, the tail is shorter than in its congener; the wing equals that of *M. viridinitens*, but is one third of an inch shorter than in *M. melanura*. The black on the breast does not extend so far as in the New-Hebrides bird. But the key to the separation of the three species is in the tail. While that of *M. melanura* has no trace of white, and that of *M. viridinitens* has the lower third of the outer tail-feather, the whole of its outer web and a large margin of its inner web, and the extremities, excepting the central pair, white, our new species has simply white tips to all its tail-feathers, and the inner and outer edges of the outer pair narrowly fringed with white.

12. MYIAGRA INTERMEDIA, sp. nov.

♂ corpore suprà schistaceo, pileo intensiore, thorace et pectore lætè castaneis, abdomine albo: rectricibus externis albo marginatis in utroque pogonio, ceteris rectricibus albo

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(6) TURDUS POLIOCEPHALUS, Lath., = *T. nestor*, Gould, = *T. badius*, Lath. Norfolk Island only. With a grey head and black body, the head of the female much darker than that of the male. Parallel to *T. pritzbueri*, but the head very differently coloured, ashy grey instead of bright pale sepia. *T. badius*, Lath., must sink into a synonym, as Mr. Sharpe and I discovered on examining the specimens in the British Museum. There is no record whence they were procured; and though Australia is written on the stands in pencil, it is probable they were only Norfolk-Island birds received *viâ* Australia. No true Thrush has yet been discovered on the Australian continent, only the *Oreocinclæ*, which, as Mr. Seebohm observes, have not yet become differentiated, nor learned to cast off the spotted plumage of their childhood when they arrive at maturity.

(7) TURDUS PRITZBUERI, Layard, Ibis, 1878, p. 254. Lifu, Loyalty Islands.

(8) TURDUS BICOLOR, Layard, = *Merula ruficeps*, E. P. Ramsay. Kandavu, Fiji Islands. Described as having a cinnamon-red head and neck (Ibis, 1876, p. 153). I have not seen it.

(9) TURDUS TEMPESTI, Layard, P. Z. S. 1876, p. 420. Taviuni, Fiji Islands. This also is particoloured, with body dark brown and the head and breast drab, tinged with red.

arctè terminatis. ♀ mari similis, sed pectore et thorace dilutioribus. Long. tot. 5·25, alæ 2·87, caudæ 2·75, rostri a rictu ·75, tarsi ·65.

This, among the rufous *Myiagræ*, is parallel in its differences and affinities to our new *M. luguieri* among the black group of this genus, standing midway between *M. caledonica* and *M. tannensis*, nob. From the former it is at once distinguished by the small extent of white on the tail-feathers, from the latter by the fact of having a white edging to them. In all these species the males and females show similar differences. They are nearly allied to Mr. Wallace's *M. rufigula* from Timor, but may be at once distinguished by the much greater breadth of the bill.

13. PACHYCEPHALA LITTAYEI, Layard, Ibis, 1878, p. 255. (Plate VI.)

I am now able to characterize the female, which Mr. Layard had not obtained when he described the species. Unlike most others of the genus, the female, as will be seen by the Plate, is little less brilliant in colour than her mate. There is a total absence of the black gorget and the black head, which latter is rusty brown; and the yellow collar on the back of the neck is represented by a faint yellowish band.

14. LALAGE MONTROUZIERI, Verr. & Desm.

I can discover no difference whatever between this and New-Caledonian specimens.

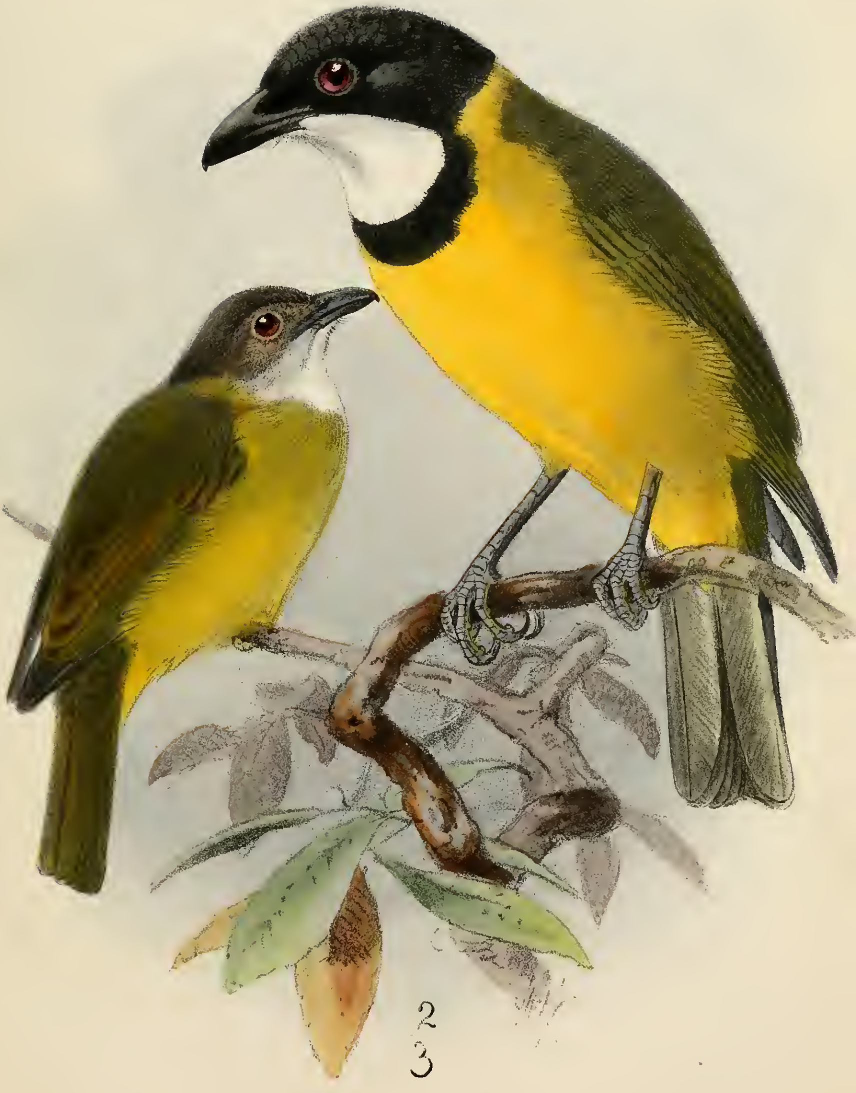
15. GRAUCALUS LIFUENSIS, sp. nov.

G. unicolor, totus niger, intensè fuliginosus, minimè cinereus. Long. tota 14, alæ 7·5, caudæ ·7, tarsi 1·25, rostri a rictu 1·75. Sexus similes.

This bird may be at once distinguished from *G. cinereus* (=*caledonicus*) in the islands on either sides of it by the uniform sooty glossless black of its whole plumage, without the slightest tendency to an ashy hue. On placing a series of each species side by side, it is impossible to mistake them.

16. APLONIS ATRONITENS, G. R. Gr.

The great size of this *Aplonis*, its massive beak, and deeply arched culmen separate it at once from its congeners. Mr.



J G Keulemans lith.
Hanhart imp

PACHYCEPHALA LITTAYEI.

AMERICAN MUSEUM
CENTRAL PARK,
NEW YORK.
OF NATURAL HISTORY.

G. R. Gray has given the measurements accurately; but he has described the female and not the male (P. Z. S. 1859, p. 164). The male has the whole body, both above and below, of an iridescent green-black.

17. Erythrura cyaneifrons, Layard, Ibis, 1878, p. 260.

The type specimens there described. The species is very like *E. trichroa*, Kittl. Mém. Ac. Pétersb. 1835, t. 10 (=*modesta*, Wall.), in measurements and coloration; but the bill is barely half the size of the Batchian bird.

18. Ptilopus greyi, G. R. Gr.

The specimens from Lifu seem rather larger than those from the New Hebrides, but in no way separable.

From the New Hebrides the collection contains:—

1. Trichoglossus massena, Bp.

Vaté Island.

2. Halcyon juliæ, Reich.

Vaté Island.

3. Halcyon sancta, Vig. & Horsf.

Vaté Island.

4. Glycyphila flavotincta, G. R. Gr.

Very close to *G. caledonica*. Often barely separable, but always a little larger.

5. Myzomela splendida, sp. nov.

M. corpore, alis et caudâ nigris, capite, cervice, tergo, et uropygio, thorace et pectore summo coccineis, lineâ oculari nigrâ. ♀ fusca, fronte et gulâ rubescentibus. Long. tota 5·6 ad 6, alæ ·3, caudæ 2·2, rostri a rictu ·85.

Hab. Tanna.

I describe this bird at Mr. Layard's request, though with some hesitation. I have long possessed several specimens identical with it from Aneiteum, and have assigned them to *M. cardinalis* (Lath.). Latham's description will answer very well, and his type came from Tanna; but his measurements are incorrect, as he gives the length 4 inches, instead of 5½ to 6. Is it possible he had come upon a Loyalty-Island specimen, which had a wrong locality assigned to it?

Mr. Layard, in a letter, states his son shot one *Turdus pritzbueri* in the New Hebrides; but he has not forwarded the specimen.

6. Petrœca similis, G. R. Gr.

Tanna.

7. Hirundo tahitica, Gm.

Vaté Island.

8. Myiagra melanura, G. R. Gr.

Vaté Island.

This is the local race, representing *M. viridinitens* and *M. luguieri* of the neighbouring groups; but as they seem always distinguishable, they may claim specific recognition.

9. Myiagra tannaensis, sp. nov.

♂ corpore suprà schistaceo, pileo nigrescente, thorace et pectore læte castaneis, abdomine dilutiore, rectricibus fuscis, pogoniis internis pallido albo limbatis. ♀ mari similis, coloribus subtùs dilutioribus. Long. tota 5·25, alæ 2·75, caudæ 2·6, rostri a rictu ·65, tarsi ·65.

Hab. Tanna.

This species bears exactly the same relation to its representative chestnut-breasted Flycatcher in Lifu and New Caledonia that *M. melanura* does to the other green-black species. In both New-Hebridean species the tail-feathers are without the white which occupies one third of the length of the outer rectrix in the New-Caledonian, and tips and fringes the Lifu species. The other differences are in all respects analogous in the two sets of species; but the key of the classification, as shown at a glance, is in the tail-feathers. I have long possessed specimens from Aneiteum; but I had, without examination, united them with *M. caledonica*.

10. Artamus melaleucus (Forst.).

Vaté Island.

In all respects identical with the bird of New Caledonia.

11. Graucalus cinereus (Forst.).

St. Bartholomew's Island.

Identical with the New-Caledonian bird. There is one specimen, obtained by Mr. Layard, Jun., on Mallicolo Island, which has quite a different hue from *G. cinereus,* being of a decidedly greenish tint; but as the specimen is a poor one, and unique, I do not venture, in my present state of ignorance, to distinguish it specifically. Further research may show that it is a local race.

12. PACHYCEPHALA CHLORURA, G. R. Gr.

Vaté Island.

13. PTILOPUS GREYI, G. R. Gr.

Vaté Island.

The specimens from the New Hebrides seem to run rather smaller than those from the Loyalties.

14. PTILOPUS CORRIEI, E. P. Ramsay, Proc. Linn. Soc. New S. Wales, vol. i. p. 133.

Ambrym Island, and also Erromanga. It seems to be generally distributed through the group. Mr. Layard (Ibis, 1878, p. 275) suggests that this Dove is probably a *Chrysœna.* It appears to me to be a true *Ptilopus,* though perhaps slightly aberrant, more typical certainly than *P. holosericeus.*

15. IANTHŒNAS LEOPOLDI, sp. nov.

I. capite et corpore suprà fuscis tantisper metallicis; alis caudâque pænè nigris; pectore fusco, metallice resplendente, pectore imo et abdomine castaneis, fusco interruptis; subalaribus fuscis; rostro ad basin rubro, ad apicem corneo, pedibus carneis. Long. tota 16, alæ 8·65, caudæ 9·2, rostri a rictu 1·15, tarsi 1.

Hab. Vaté Island, New Hebrides.

I have named this in compliment to Mr. Layard, Jun., its discoverer.

This species is just midway between *I. hypœnochroa,* Gould, of New Caledonia, and *I. castaneiceps,* Peale, of Samoa. Like the rest of the group, it has a white throat, but differs from the New-Caledonian bird in having the head of the same fuscous colour, with metallic resplendency, as the rest of the back, while the head of the other is of a lustrous vinous purple. In our new species the neck and breast are coloured like the back, while the lower breast and abdomen are vinous purple, interrupted here and there with dark brown. In *I. hypœnochroa,* on the contrary, the whole of the lower body is of a rich vinous chestnut.

It differs from *I. castaneiceps* in that it wants the chestnut head, but has the vinous purple abdomen, which in the Samoan bird is dark slate-colour. I have had for some years a specimen from Erromanga identical in all respects with Mr. Layard's from Vaté.

15. GLOBICERA PACIFICA (Gm.).

From Ambrym Island.

I cannot detect any differences between the single specimen sent home and the descriptions of this somewhat widely spread species from other islands.

16. MACROPYGIA RUFA, E. P. Ramsay, Proc. Linn. Soc. New S. Wales, vol. ii. p. 287.

Obtained by Mr. Layard both on Tanna and Vaté Islands. Mr. Mackinlay (from whose specimens it was described by Mr. Ramsay) procured it on Sandwich Island (Vaté). On Tanna he found another very distinct species, *M. mackinlayi*, Ramsay, which did not come under Mr. Layard's observation. I had several years ago received from Rev. J. Inglis a skin of a *Macropygia* from Aneiteum, too imperfect for description; but it proves to be *Macropygia rufa*, which has, it is evident, an extensive range throughout the group.

17. CHALCOPHAPS CHRYSOCHLORA, Gould.

Vaté Island.

I observe that Mr. E. P. Ramsay proposes to distinguish the New-Hebrides bird under the title of var. *sandwichiensis*, on the ground of the absence of white on the shoulder; but in Mr. Layard's collection there are some from Vaté with, and others without the white bar on the shoulders. This distinction can hardly hold, even for a variety.

18. MEGAPODIUS LAYARDI, sp. nov.

M. suprà et infrà fuliginoso-niger, tergo imo et supracaudalibus brunneo tinctis, secundariis extremis brunneo vix lavatis; remigibus et rectricibus atrofuscis; facie, sincipite et cervice nudis, plumulis angustis ubique sparsis, occipite cum pileo nigro, tarsis et pedibus lætè flavis, rostro flavo, unguibus corneis, iride brunneâ. ♀ mari similis. ♂ long. tota 17, alæ 9.5, caudæ 4, tarsi 2·7, dig. med. 1·85, unguis ·1, rostri a rictu 1·12. ♀ long. tota 15·25, alæ 9, caudæ 4·75, tarsi 2·5, dig. med. 1·6, unguis ·92, rostri a rict. 1·1.

Hab. Vaté Island, New Hebrides.

I have, of course, nothing to add to Mr. Layard's spirited account of his first day's "Malou"-shooting in Vaté (Ibis, 1878, p. 276); but I am sure the Editors will forgive my ignoring Mr. Sclater's name *brazieri*, and describing the species under the well-earned appellation of "*layardi*," since there is no proof whatever that this is the bird of Banks's Island, whence the eggs of the supposed "*brazieri*" came. In fact, the probabilities are the other way; for I have eggs from Banks's Island which are very much smaller than those now received from Vaté, and which certainly look as though they belonged to another species. I have now eggs from five islands; and, to judge from them alone, there would appear to be two more species yet to be ascertained.

The collection on which I have reported, though not Mr. Layard's first from New Caledonia, is his first from the Loyalty Islands and New Hebrides; and the list of novelties already described shows how much there must yet remain to reward the energetic and enthusiastic labours of himself and his son.

XVI.—*Note on the Name of the Purple Waterhen of South-western Europe.* By P. L. Sclater.

Both Mr. Dresser in his 'Birds of Europe,' and Mr. Elliot in his recent synopsis of the genus *Porphyrio* ('Stray Feathers,' vol. vii. p. 14), follow Gray's 'Genera of Birds' in employing "*veterum*" as the specific name of the Purple Waterhen of South-western Europe—*Porphyrio hyacinthinus* of Temminck. This, however, as will often be found to be the case when these strivings after an obscure priority are put to the test of a critical examination, is an error.

In the first place, as Prof. Newton has pointed out to me, S. G. Gmelin, to whom this specific name is credited, never intended the term "*veterum*" to be used as a specific name at all, but merely told his readers that he considered the bird, which he described as being found in "great numbers throughout Persia," to be the "*Porphyrio*" *veterum*, i. e. of ancient writers. Secondly, it seems that there is no evidence whatever of Gmelin's "*Porphyrio*" having been the *P. hyacinthinus*, or of that species ever having been found to occur nearly so far east as Persia. Even in Egypt the ordinary *Porphyrio* is certainly the green-backed *P. madagascariensis* (sive *chloronotus*) ; and the *P. hyacinthinus* appears to be restricted to Spain and Algeria. In Mesopotamia and the Arabian peninsula the prevalent *Porphyrio* is certainly the Indian *P. pulverulentus*, as there are living in the Zoological Society's Gardens at the present time examples of this species received from Bagdad and from the Hedjaz, or Arabian coast-range of the Red Sea. It is therefore in the highest degree probable that the same species prevails throughout Persia, as we know it does in Sind*; and it may have been this species which Gmelin observed on the Caspian in 1770, and which he identified with the "*Porphyrio*" of ancient writers.

Under these circumstances it would appear that the earliest name that can be employed for the *Porphyrio* of the Spanish peninsula and Algeria is *cæruleus*, under which name it was shortly described by Dominico Vandelli in 1797 in his "Floræ et Faunæ Lusitanicæ Specimen"†, and that the species should stand as *Porphyrio cæruleus* (Vandelli).

XVII.—*On a Collection of Birds from the Sierra Nevada of Santa Marta, Columbia.* By Osbert Salvin and F. DuCane Godman.

At the commencement of last year Mr. F. Simons undertook to make an expedition for us to explore the Sierra Nevada of Santa Marta, in Columbia, with the object of making collections in various branches of natural history.

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* *Cf.* Hume, 'Stray Feathers,' iv. p. 20.

† Published in vol. i. of the 'Memorias da Academia Real de Lisboa,' Lisbon, 1797. As to the occurrence of this species in Portugal, *cf.* A. C. Smith, Ibis, 1868, p. 455.

The present paper relates to his first consignment of birdskins, which reached us a short time ago.

There are few places in South America of which the zoology is less known than that of the mountainous tract of land lying between the mouth of the Magdalena river and the Gulf of Maracaibo, usually known as the Sierra Nevada of Santa Marta. Though this district has been visited by botanical travellers, no zoologist has as yet penetrated into it; or, at any rate, no results of any such expedition have been made public*. If we except the immediate neighbourhood of Santa Marta itself, where several collectors have worked for a short time, the remainder of this limited district is so little known that we can only recall the name of one bird, a Humming-bird (*Anthocephala floriceps*), found in it; and this was obtained by a botanist, so Mr. Gould tells us, near San Antonio, in the Nevada itself. Here, then, was a promising field for an ornithologist—this isolated mass of mountains, whose snowy peaks, visible from far out on the Caribbean Sea, form so striking a feature in the scenery of the northern coast of South America.

Mr. Simons landed at Rio de la Hacha, and thence made his way to Valle Dupar, which lies on the southern side of the Nevada, and is but 700 feet above the sea. From here he made excursions to various villages situated on the southern slope of the mountain—San Sebastian, Atanques, San José, and Chinchicua, at various elevations up to nearly 7000 feet above the ocean. He also passed a month at a coffee-plantation called Manaure, which he describes as situated at an elevation of 2700 feet, at the foot of the Andes, 25 miles S.E. by E. of Valle Dupar. This place would appear to be on a mountain-range apart from the Nevada. We are, however, unable to give an accurate account of the geography of this region, as no map to which we have had access gives an adequate idea of the mountain-system.

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* In 1870 Mr. G. Joad, F.Z.S., rode round the Sierra Nevada from Santa Martha, and collected a few birdskins. Amongst these was the type of the new *Furnarius*, described by us in the 'Nomenclator' as *F. agnatus*, which was obtained at Valle Dupar.

Mr. Simons speaks of the great prevalence of savanas in the parts he has hitherto visited, and the paucity of the forest. His collection, as will be seen below, is largely made up of widely ranging savana species. The forest and highland species are few, but they give an indication of the nature of the bird-fauna of the district. These show a decided preponderance of relationship with the birds of the highlands of Venezuela and Merida rather than with those of the Columbian Andes. Thus we have *Chlorophonia frontalis, Calliste cyanoptera,* and *Aulacorhamphus calorhynchus,* all Venezuelan species, while the only upland Columbian species is *Turdus gigas.* The birds from Manaure are more decidedly Columbian; and here too a curious Central-American element appears, represented by *Muscivora mexicana* and *Ramphastos carinatus.* Mr. Simons adds another peculiar Humming-bird (*Campylopterus phainopeplus*) to the one already known (*Anthocephala floriceps*). The former has its nearest ally in an Ecuadorian species of limited range. These are mere indications of what we may expect of the fauna, a much larger series being necessary to trace it in all its details.

TURDUS GIGAS, Fras.

San Sebastian (6700 ft.), 19th Feb. "Eyes and legs orange."

The single specimen sent is paler in colour than other examples of *T. gigas* we possess. The bill, too, is considerably longer. *T. gigas,* however, is a bird subject to considerable variation; and this specimen may only be an extreme divergence from the ordinary Columbian type. Total length 13 inches, wing 5·7, tail 5·3, bill 1·6, tarsus 1·7.

TROGLODYTES TESSELLATUS, D'Orb. & Lafr.

Maricosa (2000 ft.), 26th January. "Eyes brown."

Agrees with Panama specimens, which we believe to be hardly sufficiently distinct to be separated from the Peruvian *T. tessellatus.* The Panama bird is the *T. inquietus,* Baird.

BASILEUTERUS MESOCHRYSUS, Scl.

Manaure (2700 ft.), ♀, 7th May. "Eyes light brown. Found in the forest."

Agrees with Bogota examples of this species, whence the type was procured.

Setophaga ruticilla (Linn.).

Atanques (4000 ft.), 26th February. "Eyes light brown."

A single female specimen of this northern immigrant.

Cœrebra cyanea (Linn.).

Manaure (2700 ft.), ♂, 31st May. "Eyes bluish black."

Procnias tersa (Linn.).

Manaure (2700 ft.), ♂, 13th May. "Eyes brown. Found in isolated trees."

Having reexamined our series of this species, we are unable to detect any tangible difference between the supposed Columbian race, called by Mr. Sclater *P. occidentalis*, and the Brazilian bird. Of the differences originally ascribed to *P. occidentalis* none seem to us to stand the test of comparison, except that of size. Brazilian specimens are slightly larger than any from other localities; but the difference is very little, and even greater variation can be traced in examples usually attributed to *P. occidentalis*. Our series includes specimens from Brazil (Rio and Bahia), Bolivia, Peru, Ecuador, Columbia, the Nevada of Santa Marta, and Venezuela.

Chlorophonia frontalis, Scl.

Chlorophonia frontalis, Scl. & Salv. Ex. Orn. p. 81, pl. xli. f. 1.

Valley of Chinchicua (6500 ft.), 15th February; San José (5000 ft.), 14th March. "Eyes brown."

A Venezuelan species, Levraud's specimens in the Paris Museum being stated to have come from the neighbourhood of Caraccas.

Euphonia laniirostris, D'Orb. & Lafr.

Atanques (2700 ft.), 24th February and 9th March. "Eyes brown. Very common."

The yellow of the crown is a little more restricted in the two specimens sent than in Andean examples of this widely ranging species. The colour of the back, too, has a slightly greener tint.

There can be no doubt, we think, that the Andean bird should bear D'Orbigny's name, of which *E. crassirostris*, Scl., is a synonym.

Calliste cyanoptera (Sw.).

San José (5000 ft.), 15th March; Atanques (4000 ft.), 26th February. "Eyes dark brown."

Agree with Venezuelan examples of this species.

Pyranga æstiva (Gm.).

Atanques (4000 ft.), 26th February. "Eyes brown."

Volatinia jacarina (Linn.).

San José (5000 ft.), 15th March. "Eyes almost black."

Zonotrichia pileata (Bodd.).

Atanques (2700 ft.), 26th February. "Eyes brown."

Ostinops decumanus (Pall.).

Xanthornus decumanus, Pall. Spic. Zool. fasc. vi. p. 1, pl. i. (1769).

Oriolus cristatus, Gm. S. N. i. p. 387 (1788).

Ostinops cristatus, Scl. Cat. Am. B. p. 127.

San José (5000 ft.), 15th March; Atanques (4000 ft.), 26th February. "Eyes sky-blue."

This widely ranging common species is usually known under the name *Ostinops cristatus* (Gm.). But as Gmelin himself quotes Pallas's 'Spicilegia,' wherein a recognizable plate is given representing this species, we think there can be no doubt whatever that Pallas's name ought to be reinstated. Gmelin and some subsequent writers erroneously quote Pallas's title as "*Xanthornus maximus*"—a curious mistake, which seems to have originated as follows:—Pallas's article is headed "*Xanthornus decumanus*," which is, no doubt, the name he intended to introduce; but to his technical characters he prefixes "Descriptio *Xanthorni maximi*," by which he merely meant that the species he was describing was the largest *Xanthornus* known to him.

Icterus vulgaris (Linn.).

Valle Dupar (700 ft.), ♂, 3rd March. "Eyes brown. A great favourite as a songster."

STURNELLA LUDOVICIANA (Linn.).

San Sebastian (6700 ft.), 5th April. "Eyes brown."

CASSIDIX ORYZIVORA (Gm.).

Manaure (2700 ft.), ♀, 9th May. "Eyes pale dirty orange-yellow."

CYANOCORAX AFFINIS, Pelz.

Valle Dupar (700 ft.), 4th February; Atanques (2700 ft.), 9th March. "Eyes yellow. A very noisy bird; common."

These specimens differ somewhat from Columbian examples of *C. affinis*, but are not in very fresh plumage. The back is almost uniform brown, with a faint purple shade; and there is no dark blue on the nape. In the latter character they do not agree with the description of *C. sclateri*, Heine, which is the nearest neighbour of the present bird in point of locality (Carthagena). But it is very doubtful whether the latter bird is separable from *C. affinis*.

SAYORNIS CINERACEA (Lafr.).

San José (5000 ft.), 14th March. "Eyes brown."

PHYLLOMYIAS SEMIFUSCA, Scl.

Atanques (2700 ft.), 25th February. "Common all through the Nevada."

Originally described from Santa-Marta specimens.

PITANGUS DERBIANUS (Kp.).

Valle Dupar (700 ft.), 6th March. "Eyes brown."

Agrees with Venezuelan examples formerly called *P. rufipennis* (Lafr.). The difference between these and birds from Central America is very slight, consisting chiefly of the greater amount of rufous on the wing-coverts.

MYIODYNASTES AUDAX (Gm.).

Manaure (2700 ft,), ♀, 6th May. "Eyes brown. Found in the forest."

Agrees with a Venezuelan example obtained at Pilar by Goering.

MEGARHYNCHUS PITANGUA (Linn.).

Atanques (2700 ft.), 27th February. "Eyes brown."

Muscivora mexicana, Scl.

Manaure (2700 ft.), ♂ ♀, 6th May. "Eyes light brown, with a line of white round the iris. Found in the forest."

These specimens agree accurately with Panama and Central-American examples of this northern species. This is the first evidence we have had of a *Muscivora* being found anywhere near this region.

Pyrocephalus rubineus (Bodd.).

Valle Dupar (700 ft.), ♂, 3rd March. "Eyes brown. Native name 'Saugre de Toro.'"

Has the dark back of the southern race.

Tyrannus melancholicus, Vieill.

Atanques (2700 ft.), 27th February. "Eyes brown."

Milvulus tyrannus (Linn.).

Manaure (2700 ft.), May; San Sebastian (6700 ft.), 5th April. "Eyes brown."

Chiroxiphia lanceolata (Wagl.).

Manaure (2700 ft.), ♂, 6th May. "Eyes light brown. Found in the forest."

Sittasomus olivaceus (Max.).

Manaure (2700 ft.), ♀, 7th May. "Eyes dark brown. A tree-climber."

Dendromanes meruloides (Lafr.).

Manaure (2700 ft.), ♂, 15th May. "Eyes brown."

Agrees with Venezuelan examples of this species.

Campylopterus phainopeplus, sp. n.

♂ splendidè viridescens, capite summo et fronte paulo obscurioribus, gulâ totâ nitide cærulcâ, alis et caudâ chalybeo-cyaneis, hâc unicolori: long. tota 5·3, alæ 2·8, caudæ 1·8, rostri a rictu 1·1.

Hab. Sierra Nevada de Santa Marta.

Obs. C. villavicencii affinis, sed omninò distinctus, colore capitis non aureo-viridi, corpore quoque multo magis viridescente micante, caudæ rectricibus mediis chalybeis nec viridibus &c.

San José (5000 ft.), 14th March; Atanques (4000 ft.), 26th February. "Eyes brown."

Of this beautiful species Mr. Simons has sent several specimens, all but one of them shot, unfortunately, a little before their plumage had become complete, the wing-feathers being still not fully grown. He has since sent us the following note concerning it :—

"During an eight months' sojourn in the Sierra Nevada de Santa Marta I had frequent opportunities of observing this interesting and brilliant Humming-bird, which I believe is migratory, spending the months of February, March, April, and May in the banana plantations of the Lower Nevada, from 4000 to 6000 feet above the sea-level. From June to October I found it in the more elevated regions up to nearly the snow-line, or 15,000 feet above the sea-level. While exploring a mountain-gorge near Atanques (4000 ft.) I obtained my first specimen, in March. It was resting on a bent twig in the shade of a banana-leaf, and appeared very tame, allowme to retire some distance before firing. The species was unknown to most of the inhabitants of Atanques, and excited much admiration from its beauty. A few days afterwards I had the pleasure of meeting with it again among the banana-groves of San José. These plantations of the Indians are very extensive along the banks of the Guatapuri, at an elevation of 6000 feet, and are the highest banana-cultivation in the Nevada. This Humming-bird is pretty common here, but solitary; and I seldom saw more than three or, at the most, four in an afternoon. It betrays its presence, not only by the well-known *bur-rr* of the wings, but also by a sharp double note uttered as it flits from flower to flower. Alighting suddenly on a branch in the shade, it will remain minute after minute without the slightest movement. On these occasions I used to watch them carefully, but never could see them fly away, they disappeared as they came, like phantoms.

"Visiting San Sebastian in June, I was surprised to find the same little beauty, identical in plumage, but with totally different habits. Instead of shunning the sun, as among the bananas, it establishes itself on the topmost twig of some dead branch or scantily clothed tree, and passes the day filling the air with its loud plaintive note in answer to its mate. Every now and then, as a sort of exercise, it would shoot up into the air like a rocket, sound a very pretty *twit-twit*, turn a few somersaults, and descend gracefully with tail-feathers spread out like a fan. These aerial movements are excessively beautiful, and always resorted to, even if the bird is disturbed. In this latter case it does not return to its accustomed perch, but seeks another tree close by, where it sings on merrily till all danger is past; it always, however, returns to its old haunt. I watched one for a fortnight, and it never forsook its adopted perch. Another I fired at four times successively without effect; in spite of this it always returned to the same tree. They are very wary and difficult to shoot; and I have spent days dodging them backwards and forwards without getting near enough for a shot. June and July are the flowering months in the elevated regions. This may attract them; for I have met with them in all parts of the Nevada, especially in a valley at an elevation of 11,000 feet, where they were abundant, but so shy that there was no approaching them within a hundred yards. On crossing to the northern flank I found them as low down as San Miguel, 6000 feet. At San Antonio, 3450 feet, not ten miles distant, they were unknown.

"On previous visits to San Sebastian in February and March, this species was not there; but the Indians told me that after the first rains a very beautiful "Chupa-flor" puts in an appearance, without, however, being very common. Passing a couple of days in San José in August, I found they had disappeared.

"Atanques, a small Indian village of 1000 inhabitants, the capital of the Territory of Nevada, lies in the mountains between the rivers Guatapuri and Badillo, about four miles (as the crow flies) N.E. of Valle Dupar.

"The first rains begin in April; May is very wet, June to September showery.

"The second rains begin in September; October is the worst month; and November is sometimes wet."

Chalybura buffoni (Less.).
Manaure, ♂ ♀, 18th May.

Acestrura mulsanti (Bourc.).
Atanques (2700 ft.), 26th February.

Metallura smaragdinicollis?
Valley of Chinchicua (6500 ft.), 15th February.

The single imperfect skin sent agrees, so far as we can detect, with Peruvian and Bolivian examples of this species. We should not, however, be surprised to find that adult specimens showed that the species was distinct, as the Sierra de Santa Marta is a very long way from the previously known range of *M. smaragdinicollis*.

Panychlora, sp.?
Manaure (2700 ft.), ♂, 7th May.

This may prove to be an undescribed species; but we hesitate, as yet, to give it a name. Its size about equals that of *P. poortmanni*; but the tail is longer, and of a rich coppery hue. This may be the result of damp; so that we wait for more specimens before deciding the position of the species.

Mr. Simons sends three other specimens of Trochilidæ; but as they are all females, their determination cannot be effected satisfactorily.

Campephilus malherbii, Gray.
Atanques (4000 ft.), ♂, 26th February. "Eyes white."

Centurus tricolor (Wagl.).
Valle Dupar (700 ft.), ♂, 3rd March. "Eyes brown."

Pharomacrus fulgidus, Gould.
Valley of Chinchicua (6500 ft.), 15th February. "Scarce at Chinchicua, and unknown elsewhere."

Galbula ruficauda, Cuv.
Valle Dupar.

Bucco ruficollis (Wagl.).
Valle Dupar (700 ft.), 3rd February. "Eyes pale brown."

Agrees with one of Mr. Wyatt's specimens obtained at Ocaña in Columbia.

RAMPHASTOS TOCARD, Vieill.

Manaure (2700 ft.), ♂, 12th May. "Eyes yellowish brown."

RHAMPHASTOS CARINATUS, Sw.

Manaure (2700 ft.), ♂, 18th May. "Eyes yellowish brown."

This is the first South-American specimen I have seen, the range of the species being hitherto supposed to be restricted to Central America.

AULACORHAMPHUS ALBIVITTA, Gould.

Chinchicua (6500 ft.), ♂ ♀, 15th April. "Eyes dark brown."

Differs slightly from Bogota examples of this species in having the throat of a pale bluish grey, and a dark mark running down the culmen from the forehead. The base of the mandible is black. In the colour of its throat this bird agrees with the bird described by Mr. Gould as *A. phæolæmus*; but the base of the mandible is black, and not red. The validity of *A. phæolæmus* is very doubtful (see P. Z. S. 1875, p. 236).

AULACORHAMPHUS CALORHYNCHUS, Gould.

Aulacorhamphus calorhynchus, Gould, Ann. & Mag. Nat. Hist. ser. 4, xiv. p. 183.

Chinchicua (6500 ft.), ♂, 16th April. "Eyes carmine red."

Hitherto only known from the upland forests of Merida, where Goering discovered it.

PIAYA CAYANA (Linn.).

Valle Dupar (700 ft.), 4th February. "Eyes carmine red."

CONURUS WAGLERI, Gray.

Atanques (2700 ft.), 25th February.

URUBITINGA MERIDIONALIS.

TINNUNCULUS SPARVERIUS.

Manaure (2700 ft.), ♂, 1st June. "Eyes dark brown."

The adult male specimen has a very distinct rufous occiput, just as in northern examples of this species.

ICTINEA PLUMBEA.

Manaure (2700 ft.), ♂, 30th May. "Eyes dark carmine-red."

BUTORIDES CYANURUS.

XVIII.—*Notices of recent Ornithological Publications.*

26. *Sennett on the Birds of the Lower Rio Grande.*

[Notes on the Ornithology of the Lower Rio Grande of Texas, from Observations made during the Season of 1877. By George B. Sennett. Bull. U.S. Geol. & Geogr. Surv. Territories, vol. iv. pp. 1–66.]

These notes give the results of a spring's collecting in Texas, and show what may be done in a short time by an energetic man "who goes south for the winter." In the short space of two months some 500 birds were obtained, three of which were new to the fauna of the United States, and one to science, and about 1000 eggs, many of which were new or rare, not to speak of mammals, reptiles, and insects.

The great prize was *Parula nigrilora*, Coues, a new species, "entirely distinct from *P. americana*, and belonging to the *P. pitiayumi* group," of which five examples were procured, all males. Other interesting birds were *Neocorys spraguii*, *Xanthura luxuosa*, *Geococcyx californianus*, *Amazilia cerviniventris*, and *Leptoptila albifrons*, for which Dr. Coues has proposed the new generic name *Æchmoptila*. We observe also that Dr. Coues has resuscitated for M'Cown's Bunting the generic name *Rhynchophanes*, originally proposed by Baird as a subgenus in 1858, being apparently of Bonaparte's opinion, that it is no Bunting at all, but allied to the Finches of the Loxiine group.

Many interesting notices of habits and other particulars are given by Mr. Sennett. His notes have been carefully edited by Dr. Coues, who is likewise responsible for the determination of the species.

27. *Merrill on the Ornithology of Southern Texas.*

[Notes on the Ornithology of Southern Texas, being a List of Birds observed in the vicinity of Fort Brown, Texas, from February 1876 to June 1878. By James C. Merrill, Assistant-Surgeon U.S. Army. Proc. U.S. Nat. Mus. 1878, pp. 118–173.]

This list, on the same subject as the last paper, includes the names of no less than 252 species of birds, and is of special interest, as it relates to the avifauna of the border-land between the Nearctic and Neotropical Regions. The result of Dr. Merrill's observations shows that in the valley of the Rio Grande, as in Arizona and New Mexico, there is a stronger infusion of Mexican forms than has been hitherto supposed. Dr. Merrill and Mr. G. B. Sennett, who, as we have just noticed, has also worked successfully in the same field, have thus been able to add the names of a number of species to the fauna of the United States. Of these additions full synonymy and references, as well as descriptions, are given. They are as follows:—*Thryomanes bewicki,* var. *leucogaster, Vireosylvia flavoviridis, Molothrus æneus, Sturnella magna,* var. *mexicana, Myiarchus erythrocercus,* var. *cooperi, Nyctidromus albicollis, Amazilia fuscicaudata, A. yucatanensis, Buteo albicaudatus, Æchmoptila albifrons,* and *Parra gymnostoma.*

As regards the *Thryomanes,* it is open to question if the term *leucogaster* can properly be associated with this species. *Troglodytes leucogaster,* Gould, the origin of the term, was considered by Prof. Baird (Rev. Am. B. p. 127) to be a variety of *T. bewicki,* but has, in fact, nothing to do with that species, being identical with *Cyphorhinus pusillus,* Scl. It has since been placed in a separate genus under the name *Uropsila leucogastra* (Scl. & Salv. Nomencl. Av. Neotr. p. 7).

Amazilia fuscicaudata is our old friend *A. riefferi.* It seems to us very questionable if the former name, proposed by Fraser, is really applicable to this bird. Fraser is silent respecting the characteristic rufous lores of *A. riefferi,* in which bird, too, we fail to recognize any white margins to the feathers of the throat, breast, and abdomen. Dr. Merrill seems to have followed the questionable lead of Reichenbach in resuscitating this name, which had best be left in abeyance till a bird answering better to Fraser's description reaches us.

The type of *Amazilia yucatanensis* is still, we believe, in the possession of Dr. Cabot of Boston. A comparison of the Texan specimens with Mexican examples of *A. cerviniventris* and this type would be satisfactory, as Mr. Gould has always asserted that *A. yucatanensis* and *A. cerviniventris* are distinct species.

28. *Ridgway on the American Species of* Scops.

[A Review of the American Species of the Genus *Scops*, Savigny. By Robert Ridgway. Proc. U.S. Nat. Mus. 1878, p. 85.]

In this paper Mr. Ridgway has grappled with a complicated subject with his usual energy and care; and the results he has arrived at are fairly satisfactory, and agree in the main with what has been done by other workers in the same field. He recognizes seven species of American *Scops*, one of which, from Costa Rica, is here described as new under the name of *S. cooperi*. The great difficulty in the members of the genus centres round *S. brasilianus* and *S. asio*. Of the former Mr. Ridgway writes of five races, which, however, are quite undistinguishable as species. The latter also comprises five races, the relations of which are perhaps hardly so well understood, owing to the greater rarity of some of the forms. *Scops trichopsis*, Wagl., is treated as a distinct species; but Mr. Ridgway has well-founded doubts whether this name is strictly applicable to the bird he describes*.

29. *Ridgway on a new Humming-bird from Guatemala.*

[On a new Humming-bird (*Atthis ellioti*) from Guatemala. By Robert Ridgway. Proc. U.S. Nat. Mus. 1878, p. 8.]

Mr. Ridgway finds that Guatemalan specimens of the bird hitherto called *Atthis heloisæ* differ in several particulars from Mexican examples. As the latter is the rightful owner of the old name, he calls the former *Atthis ellioti*. The chief difference consists in the width of the first primary in the two forms.

30. *Lawrence on the Birds of St. Vincent.*

[Catalogue of the Birds of St. Vincent, from Collections made by Mr. Fred. A. Ober, under the Direction of the Smithsonian Institution, with his Notes thereon. By George N. Lawrence. Proc. U.S. Nat. Mus. 1878, p. 185.]

This is the catalogue promised by Mr. Lawrence when describing the new species of Mr. Ober's collection in a paper we noticed in last year's volume (Ibis, 1878, p. 468). The island of St. Vincent, as here shown, contains 59 species of birds, of which 22 belong to widely ranging wading and sea-birds. Of the remaining 37 eight or nine are probably peculiar to this small island. In the present paper Mr. Ober's field-notes are incorporated with Mr. Lawrence's observations on the synonymy &c.

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* [I took the opportunity in passing Würzburg in 1877 of stopping to see Wagler's type of this species, which, through the kindness of Dr. Semper, I was able to find in the Museum of that town. I had no skins for comparison with me; but I went away with the impression that the

Our ignorance of the nature of the bird-fauna of the West-Indies has long been a subject of regret amongst ornithologists; and we cannot but rejoice that the energy and resources of the Smithsonian Institution, under whose auspices Mr. Ober is working, have at last been invoked to remove the veil that has hung over these islands, so far as ornithology is concerned, and, we believe, as regards most other branches of biology. To show how little our knowledge has progressed, we believe Mr. Ober has resumed the exploration of St. Vincent more than half a century after the commencement made by the Rev. Lansdown Guilding, whose name the splendid Parrot of the island bears, and whose early death arrested the labours of an excellent observer.

31. *Lawrence on the Birds of Dominica.*

[Catalogue of the Birds of Dominica, from Collections made for the Smithsonian Institution by Frederick A. Ober, together with his Notes and Observations. By George N. Lawrence. Proc. U.S. Nat. Mus. 1878, p. 48.]

Fifty-six species of birds are included in this list, which is a large advance upon the number previously recorded from Dominica. In a preliminary paper, which we noticed last year (Ibis, 1878, p. 103), Mr. Lawrence described several new species from this island. We now have a complete list of the species in the collection, together with Mr. Ober's field-notes. Several undetermined species are included in

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bird was a specimen, in grey plumage, of the Mexican and Guatemalan species which I had always considered it to belong to. I still think that the name applies strictly to the bird called *S. maccalli* by American authors, *Scops asio β maccalli* of Mr. Ridgway's paper (p. 109).—O. S.]

general terms, Mr. Ober not having obtained specimens. Of these there are a "Thrush," a "Swift," a "Parrot" (apparently allied to *Conurus pertinax*), a "Sandpiper," a "Tern," and a bird called "Diablotin." This last Prof. Baird thinks may be the same as the Jamaican Petrel, *Prion caribbæa*, described by Dr. Carte (P. Z. S. 1866, p. 93), which really belongs to the genus *Œstrelata*; but we still adhere to our former suggestion (Ibis, 1878, p. 195), that the Dominica bird is much more likely to be *Œ. hæsitata* of Kuhl, a known inhabitant of Martinique.

32. *Lawrence on the Birds of Antigua and Barbuda.*

[Catalogue of the Birds of Antigua and Barbuda, from Collections made for the Smithsonian Institution by Mr. Fred. A. Ober, with his Observations. Proc. U.S. Nat. Mus. i. pp. 232–242.]

Mr. Ober's collections from these islands were made in August and September 1877; but the box containing them got astray, and was only recovered a short time ago. Mr. Lawrence has now examined its contents; and the result is a paper *en suite* with those on St. Vincent and Dominica, which we have already noticed. The birds of Antigua offer no great peculiarity. The Thrush is *Margarops densirostris*; the *Certhiola*, *C. dominicana*; the only peculiar species is an Owl of the genus *Speotyto*, which Mr. Lawrence describes under the name *S. amaura*. We notice, however, that both in Antigua and Barbuda *Dafila bahamensis* is resident. Though attributed to the Bahamas by Catesby, this is the first recent record of the bird being found anywhere near those islands. Amongst the birds of Barbuda Mr. Ober's collection reveals nothing new; but the presence of *Cinclocerthia ruficauda*, *Certhiola dominica*, *Myiarchus oberi*, and *Tyrannus rostratus* shows that the relationship of the fauna lies in the direction of the islands lying to the southward.

33. *Lawrence on a new* Chætura.

[Description of a new Species of Cypselidæ of the Genus *Chætura*. Ann. N.Y. Ac. Sc. i. pp. 255, 256.]

Mr. Lawrence finds that the Swift referred by him to *C.*

poliura, Temm., in his paper on Dominica birds (Proc. U.S. Nat. Mus. i. p. 62) is not that species, but is apparently undescribed; and for it he proposes the name *C. dominicana.* The receipt of a specimen of *C. poliura* from Tobago at once showed him the difference between the two. There has been no slight confusion on the subject of *C. poliura*; but the whole matter was set straight by Sclater in 1870 (P. Z. S. p. 329), and by Finsch (*l. c.* p. 558). It will there be seen that the *C. poliura* of Sclater's article on Cypselidæ, to which Mr. Lawrence refers, is not that species, but *C. cinereicauda* (Cass.). Of the Martinique species of Buffon, to which Mr. Lawrence alludes, we have had no recent tidings; but is it not probably the same as that of Dominica?

34. *Cordeaux on the Migration of Birds.*

[On some Peculiarities in the Migration of Birds in the Autumn and Winter of 1877–78. Quart. Journ. Meteorol. Soc. 1878, p. 157.]

In this short paper Mr. Cordeaux shows how the mild winter of 1877–78 influenced the migration of birds, delaying their appearance to a great extent, and on the advent of short periods of cold, causing the sudden appearance of large numbers of certain species. Mr. Cordeaux's residence is favourably situated for such observations; and he makes good use of his opportunities, not only by carefully noting what passes in his own district, but also by comparing his records with those of such naturalists as the veteran ornithologist of Heligoland, Herr Gätke, and, by thus enlarging the area of observation, accumulating facts that must some day assist materially in explaining the problem of the migration of birds.

35. *A. Milne-Edwards on the Genus* Mesites.

[Rémarques sur le Genre *Mesites* et sur la place qu'il doit occuper dans la série ornithologique. Ann. Sc. Nat. sér. 6, 1878, art. 6.]

This is an amplification of a short paper published last year in the 'Comptes Rendus,' which we have already noticed (Ibis, 1878, p. 470). Prof. Milne-Edwards now goes into further details of his subject, and on the plate accompanying the present paper depicts some of the chief features of the skeleton of this singular form.

36. *Elliot on the Genus* Porphyrio *and its Species.*

[The Genus *Porphyrio* and its Species. Stray Feath. vii. pp. 6–25.]

Mr. Elliot's materials for elaborating this paper are contained in the Paris Museum. He allows nine valid species of the genus, all of which are inhabitants of the Old World. The American birds often placed in *Porphyrio* are considered to belong to a different genus. Several changes of synonymy are advocated, and several supposed species are degraded from that rank and their names cast into the limbo of synonyms. This process has been freely applied to the birds of the South Pacific Islands, all of which Mr. Elliot considers to belong to one and the same species as that of Java, *P. calvus.* The species described as new last year (Ann. & Mag. N. H. ser. 5, i. p. 98) from Cochin China under the name *P. edwardsi* is now figured. Another plate shows the extent to which the frontal shield varies in *P. calvus.* There is a small matter connected with this paper to which we wish to call the attention of the editor of 'Stray Feathers'—that is, the suppression of the original pagination in the separate copy of this paper now before us. It has been found most desirable, and, we may say, is now almost universally put in practice, to keep, in separate copies, the original pagination of the work from which they are taken. When quotations are made from the separate copy, and not from the whole work, the convenience of having the original pagination before one is too obvious to need advocating.

37. *Salvadori on the Subgenus* Globicera.

[Monografia del sottogenere *Globicera,* Bp. Cronaca del R. Liceo-Ginnasio Cavour, 1877–78.]

Of this section of the genus *Carpophaga* Prof. Salvadori recognizes seven species, all of which, with one exception, are found in the islands of the Pacific Ocean. *C. myristicivora* has a more western range than the other six species, frequenting nearly the entire New-Guinea area, including many of the adjoining islands. The whole synonymic history of these seven species is carefully brought together in this paper; and the range of each species is traced.

38. *Salvadori on new and rare Birds from the Sanghir Islands.*

[Descrizione di tre nuove specie di Uccelli e note intorno ad altre poco conosciute delle isole Sanghir. Atti R. Acc. Sc. Tor. xiii. pp. 1181–1189.

The three species described in this paper are *Dicruropsis axillaris,* allied to *D. leucops,* Wall., *Macropygia sanghirensis,* allied to *M. albicapilla,* and *Ardetta melæna.* The rest of the paper treats of *Pitta cæruleitorques* and *P. sanghirana, Oriolus formosus,* and an undetermined species of *Eudynamis.*

39. *Salvadori's Prodromus of Papuan Ornithology.*

[Prodromus Ornithologiæ Papuasiæ et Moluccarum. VI. Picariæ. Fam. Cuculidæ. Ann. Mus. Genov. xiii. pp. 456–463.]

Thirty-six species of Cuculidæ are included in the Papuan subregion, whereof twenty-five are represented in the collections of Beccari, D'Albertis, and Bruijn. In this paper Prof. Salvadori proposes two new generic names—*Ramphomantis,* with *R. megarhynchus* (G. R. Gray) as its type, and *Microdynamis,* type *M. parva* (Salvad.). He also describes the following new species—*Cacomantis æruginosus, Lamprococcyx pœciluroides,* and *L. crassirostris.*

40. *Boucard on Guatemalan Birds.*

[Liste des Oiseaux récoltés au Guatémala en 1877. Par A. Boucard. Ann. Soc. Linn. Lyon, 1878.]

Mons. Boucard spent the month of June 1877 in Guatemala, during which time, with the help of his friends, he obtained 273 species of birds. He tells us that this collection was formed in the departments of Guatemala, Escuintla, Amatitlan, Sacatipeques, Quezaltenango, and Vera Paz, but, unfortunately, seldom informs us exactly where any one species was found. Short notes are appended to the name of each bird, containing vague remarks as to whether the species is an inhabitant of the hot or cold country, &c.; but they are so full of inaccurate and erroneous statements that it is obvious that they are not the result of M. Boucard's personal observations; and such being the case, they are, in our opinion, quite valueless. Some of the names in the list are, we have little doubt, misapplied, such as *Laroides occidentalis, Ara militaris, Chloronerpes æruginosus, Grallaria princeps,* none of which are, so far as we know, Guatemalan birds. M. Boucard describes two supposed new species, *Mymotherula nigrorufa* and *Eugenes viridiceps,* the former of which seems to have been based upon the skin of a young male of *M. ménétriési.*

One thing in this list strikes us as surprising; and that is that M. Boucard in June, or his friends between April and July, obtained over twenty species of birds that only visit Guatemala during the winter months! Can it be that the former, in this well-trodden field, has followed in the footsteps of his great countryman Le Vaillant?

41. *'Bulletin' of the Nuttall Ornithological Club.*

[Bulletin of the Nuttall Ornithological Club, January 1879.]

In the January number of our contemporary several contributors continue subjects begun in former numbers. In addition to these we find several fresh papers. There is an interesting article by Mr. Brewster on the Terns of the New-England coast, where no less than eleven species occur, more or less regularly, either as summer residents or during their spring and autumn migrations. Only four, however, are known to breed along the coast. Mr. S. D. Osborne has a paper on the coloration of eggs, in which he shows that the spots on the eggs of birds of all orders are of one colour in each egg, and that the variety of tints observable is due to an overlying calcareous coating, and not to a variety of pigments. The experiment is a very simple one—on merely scraping away with a knife the coating overlying the purple or lilac spots, a uniform colour in each egg is found beneath. Mr. G. H. Coues, a nephew of our well-known contributor Dr. Elliott Coues, gives a list of the birds he has observed in the hospital grounds in Brooklyn city, no less than sixty species having come under his notice, a large number to be found in the heart of a great city. A large proportion of these are marked as common, not a few residing to breed. Besides the usual reviews, the general notes contain several records of interest, amongst which we notice that two specimens of *Dendrœca kirklandi* have been captured in Ohio, within two miles of where Dr. Kirkland originally found it. More specimens of *Vireo atricapillus* have turned up in Texas; and the history of the specimen of *Helminthophaga leucobronchialis,* found in the Philadelphia Museum, is traced.

42. *Sharpe on the Birds of Rodriguez.*

[Natural History of the Transit-of-Venus Expedition. Birds.]

Mr. Sharpe has sent us a copy of the "Birds" of the Zoology of Rodriguez, which we take to be a portion of the work on the results obtained by the naturalists of the Transit-of-Venus Expedition, now in course of preparation by the Royal Society. The paper itself calls for few comments on our part; for, as Mr. Sharpe justly remarks in his introductory observations, but little is contained in it that had not already been made public by Mr. E. Newton in this Journal (Ibis, 1865, p. 146), or by Prof. Newton here and elsewhere. The only additions that we notice are in the wading and sea-birds, several of which Mr. Newton was unable to determine, and some of which did not come under his notice at all. As regards observations on the habits and abundance or otherwise of the indigenous species, Mr. Newton is still our only authority, as neither of the collectors in this expedition have practically any thing to say on the subject. In matters of nomenclature Mr. Sharpe propounds that the Warbler doubtfully referred to the genus *Drymœca* as *D. rodericana* by Prof. Newton (who, by the by, never wrote *Drymœca*!), should, without doubt, be placed in *Bradypterus.* His argument does not strike us as convincing. The paper is supplemented by a "Note on *Anous,*" in which Mr. Sharpe describes three new species of this genus—two, allied to *A. stolidus,* as *A. superciliosus* and *A. galapagensis,* and one of the *A. tenuirostris* group as *A. plumbeigularis.* As considerations of geographical distribution appear to be reckoned of next to no value in differentiating these species, we cannot help concluding that their characters are as artificial as the "key" defining them. According to the latter *A. galapagensis* differs more from

A. stolidus than *A. stolidus* does from the seven others of Mr. Sharpe's species, and *A. tenuirostris* is placed in closer relationship to *A. cæruleus* than to *A. melanogenys* and *A. leucocapillus*—propositions which cannot seriously be maintained. These "keys" ought either to be avowedly artificial, as that given in Dr. Coues's 'Key,' or they ought to indicate the degrees of value attached to the different characters employed in differentiating the component species contained in the key. The latter is certainly the goal to be aimed at. In the present case Mr. Sharpe will, we think, himself admit that he has given a higher value to subordinate characters than they are really entitled to, rendering his key to this extent artificial, and teaching an erroneous view of the relationship the species bear to one another.

Of Mr. Sharpe's new species, *A. superciliosus* is apparently the common Noddy of the West Indies (found also in the Bay of Bengal!). Can this really be specifically distinct from *A. stolidus*, admitted by Mr. Sharpe as an inhabitant of North America, *i.e.* the shores of the Gulf States? *A. plumbeigularis* is from the Red Sea, the characters being drawn from a single specimen in the British Museum. A single specimen also furnishes the characters of a species from the Galapagos Islands. This individual Mr. Saunders (P. Z. S. 1876, p. 669), very properly, we think, considered to be in immature plumage, and placed with *A. stolidus*.

43. *Sharpe's Notes from the Leyden Museum.*

[Notes from the Leyden Museum. Notes VI.-XII.]

These notes give the results of a visit to the Leyden Museum in the autumn of last year. In Note vi. Mr. Sharpe describes two species of *Arses*, which he calls *A. batantæ* and *A. aruensis*. The former is from the islands of Batanta and Waigiou, the latter from the Aru islands and New Guinea. Objections to the selection of names for new species suggestive of their geographical distribution have often been urged, owing to the erroneous indication they convey of the range of the species to which they are applied, should this subsequently be found to be of wider extent. The names *batantæ* and *aruensis* seem, then, ill chosen, seeing that the species to which they are attached are known at the outset to have no such restriction of range as these names indicate.

Note vii. contains the description of a new *Rhipidura*, called *R. elegantula*, from the Island of Lettie.

In Note viii. *Pœcilodryas cinerea* is described, one of Hr. Bruijn discoveries in the Arfak Mountains. Mr. Sharpe also revises the component species of this genus, and gives a list of the eleven species which, according to his views, ought to be placed in it.

Note ix. records Mr. Sharpe's recognition of the identity of *Muscicapa rufigula*, Müll., with *M. luteola*, Pall., and *M. mugimaki*, Temm.

In Note x. Mr. Sharpe divides off the major portion of the genus *Gerygone*, and places it in a new genus, *Pseudogerygone*. In *Gerygone*, as restricted, he leaves seven species, whilst in *Pseudogerygone* are placed twenty-four. A new species from the Arfak Mountains is described as *Pseudogerygone rubra*.

In Note xi. a new genus and species from the Arfak Mountains is described as *Clytomyias insignis*. It belongs to the Muscicapidæ, and is allied to *Todopsis* and *Chenorhamphus*.

Note xii. relates to Campophagidæ; and an examination of some of the types in the Leyden Museum enables Mr. Sharpe to state that *Volvocivora melanura*, Hartl., is *V. lugubris*, Sundevall, with half a tail (!), and that *Lalage nychthemera* is identical with *Oreicola melanoleuca* (Vieill.). Mr. Sharpe also adds a note on *Pericrocotus ardens* and some of its allies.

44. *Sach's Llanos of Venezuela.*

[Aus den Llanos: Schilderung einer naturwissenschaftlichen Reise nach Venezuela. Von Carl Sachs. Mit Abbildungen. 8vo. Leipzig, 1878.]

Every naturalist should read this work, which contains a most interesting account of the author's expedition to the Venezuelan Llanos in search of electric eels (*Gymnotus*), and gives many notices of other animals. On the streams and caños of the Llanos, confluents of the Orinoco, Dr. Sachs found the "Guacharacá de Agua," *i. e. Opisthocomus cris-*

tatus, excessively common, sitting on the branches over the water, and uttering its harsh cries. Dr. Sachs unfortunately lost his life in an alpine accident last year, as many of our readers will be aware.

45. *Dalgleish's List of the Birds of Ardnamurchan, Argyllshire.*

[List of the Birds which have been observed in the district of Ardnamurchan, Argyllshire. By John J. Dalgleish. Pr. Nat. Hist. Soc. Glasgow, 1877, p. 259.]

This list contains the names of 115 species of birds observed during the last twenty years in the peninsula of Ardnamurchan, a district interesting, from an ornithological point of view, as being the most westerly portion of the mainland of Great Britain.

46. *Moore's 'Columbarium.'*

[Moore's 'Columbarium:' Reprinted from the original edition of 1735, by W. B. Tegetmeier. London, 1879.]

Mr. Tegetmeier, to whom we all owe a debt of gratitude for reprinting Boddaert's 'Table des Planches Enluminées,' has now issued a reprint of a scarce tract on a subject in which he is one of the first living exponents. The chief interest of Moore's 'Columbarium' consists in the careful descriptions of the different races of the domestic Pigeon as they existed in 1735, enabling a comparison to be made with those of the present day. The alterations produced by careful breeding, carried on for 150 generations, can thus be traced. Several editions of the work have been issued at various times; but the present reprint is a verbatim reproduction of the first edition of 1735.

47. *Oustalet on Ibises.*

[Observations sur le groupe des Ibis et descriptions de deux espèces nouvelles par E. Oustalet. Nouv. Arch. du Mus. sér. 2, p. 167, pls. 6, 7.]

In this paper, which appears to have been written before Mr. Elliot's and Dr. Reichenow's memoirs on the same subject, M. Oustalet discusses the classification of the Ibises, which he places as a subfamily, Ibidinæ, of the family Tantalidæ, leaving the Spoonbills out of consideration altogether. This arrangement is opposed to the views of the best recent writers, who have conclusively shown the near relationship of *Tantalus* to the Storks (Ciconiidæ), and the close affinity of the Ibises and Spoonbills. M. Oustalet allows eight genera of Ibises, grouping them in two sections. He then describes, more fully than in his former paper (Bull. Soc. Phil. ser. 7, i. p. 25, *cf.* Ibis, 1877, p. 486), *Ibis harmandi* and *I. gigantea*, the two plates illustrating, one the comparative details of the heads of *I. harmandi* and *I. papillosa*, the other the full view of *I. gigantea*.

XIX.—*Letters, Announcements, &c.*

We have received the following letters, addressed to the Editors of 'The Ibis:'—

Heligoland, February 10, 1879.

Sirs,—Permit me to point out an omission which occurred in my letter of the 28th of September last published in the January number of 'The Ibis' (p. 102), and by which I am made to identify a buffish grey *Phylloscopus* with *P. viridanus*.

What I wrote was, "a fine specimen of *Phylloscopus viridanus*, shot here on the 25th inst. by my eldest son *whilst looking after another* Phylloscopus greatly resembling *P. fuscatus*," &c. &c.

The only ornithological news I have to report for the present consists in the capture of a fine young male of *Anas spectabilis*, shot here on the 11th of last month. This may not prove of general interest; locally, however, the case stands widely different, since the species has not been captured or seen here during the last forty years; prior to that period only one female bird stands on record as ever having been obtained near Heligoland.

Yours truly,
H. Gätke.

Noumea, New Caledonia,
December 5, 1878.

Sirs,—In looking over a "Synopsis of the Birds hitherto described from the Hawaiian Islands, with notes by Sanford B. Dole, Esq., of Honolulu, Corresponding Member"*, I see the writer says of *Ardea sacra*, "the young birds are wholly white, and the female whiter than the male." Now this is in direct opposition to my experience of the bird in Fiji, and accords with my statement of the Ceylonese species (*cf.* Ibis, 1876, p. 176). This opens this very curious question once more. Are they distinct races or species, or are the young in some places *white*, in others *blue*? I hope my brethren of 'The Ibis' will, as their opportunities permit them, keep this subject in view. We have the species here; but I do not yet know of any breeding-place.

Yours &c.,
E. L. Layard.

New York, Dec. 6, 1878.

Sirs,—In my article on *Phasianus* (*Euplocamus*) *ignitus*, published in 'The Ibis' of October 1878, on p. 413, there is a printer's error which causes me to make a statement that is contrary to the fact. Commencing on the ninth line from the bottom, the text reads "The habitat 'China' attached to the specimen cannot be considered the true one; for no such form as *Euplocamus* is found in China," &c.

This should read, "for no such form of *Euplocamus*" &c. The genus is represented in China, as every one knows, by the common *Euplocamus nychthemerus*.

I am, &c.,
D. G. Elliot.

Northrepps, 21st January, 1879.

Sirs,—In 'The Ibis' for 1876, at p. 487, I referred to a specimen of *Urubitinga anthracina* from the Island of St. Vincent (which was at that time living in the Gardens of the Zoological Society of London) having then recently acquired, with some slight exceptions which I particularized, its full adult plumage.

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* I do not know to whom I am indebted for this paper (cut out of the 'Proceedings of the Boston Soc. N. H.' vol. xii. April 1869, as I learn from a printer's memo.); but I am much obliged to him, whoever he is.

This specimen, which has also been referred to by Mr. Lawrence in his "Catalogue of the Birds of St. Vincent," at p. 195 of the 'Proceedings of the United-States National Museum' for 1878, died on 8th of December, 1878; and its skin is now preserved in the Norwich Museum.

It proved a male on dissection, and at the time of its death had lost all remains of immature plumage, except a little edging of brown on some feathers of the nape, its adult dress agreeing with that of continental examples.

As Mr. Lawrence speaks of a St.-Vincent specimen which he examined, and which was also a male, as "rather larger, and apparently stouter, with a shorter wing than a specimen from Mexico, which is a female," I think it may be desirable to record the comparative length of the wings and tarsi of the birds of this species, which are now preserved in the Norwich Museum:—

	Wing from carpal joint.	Tarsus.
New Granada, marked ♂ by Verreaux....	14·5	3·2
" " "	14·8	3·5
Guatemala, marked ♂ by Verreaux	14·5	3·1
" presumed ♂	14·6	3·2
" marked ♂ by the collector, Mr. Skinner, but probably erroneously	15·6	3·5
St. Vincent, ♂ by dissection	15·1	3·5
Venezuela, marked ♀ by Verreaux	15·2	3·3
Northern Mexico, presumed ♀	16·1	3·4

I am &c.,
J. H. Gurney.

The generic Name Phainopepla.—I notice that in 'Coues's 'Key,' Baird, Brewer, and Ridgway's 'North-American Birds,' and in other American works lately issued, the generic term "*Phainopepla*," which I proposed in 1858 for the *Ptilogonys nitens* of Swainson, is altered into "*Phænopepla*." I wish to point out that this "emendation" of my spelling is incorrect. The derivation of "*Phaīnopepla*", as was given when the name was made (P. Z. S. 1858, p. 453), is *φαεινὸς, nitidus,* and *πέπλον, vestis.* Now *φαεινὸς* in Latin becomes "*Phaīnus,*" not "*Phænus,*" and *Phaīnopepla* is orthographically right. "*Phainoptila*" of Salvin (1877) is derived from the same word. I hope no one will try to emend it.—P. L. S.

Memoir of the Marquis of Tweeddale.

No more severe loss has of late years fallen on the science to which we are devoted than has happened to us by the sudden and premature death of Lord Tweeddale, which took place on the 29th December, 1878. Not only was Lord Tweeddale personally known to all the principal members of the British Ornithologists' Union, but he was also constantly engaged in actual ornithological work, and always most ready to supply information and advice to those who consulted him on his favourite subject. Lord Tweeddale had also shown his purpose to devote part of the wealth which he had recently inherited to the promotion of science; so that, in every way, there is scarcely one amongst us whose removal from his sphere of influence could have been more generally felt by all ornithologists.

Arthur Hay, 9th Marquis of Tweeddale, F.R.S., and President of the Zoological Society of London, was born on the 9th November, 1824, the second son of his father, the previous Marquis, who was a Field-Marshal, and a well-known Peninsular veteran. In April 1841 Lord Arthur Hay, as he was then called, obtained a commission in the Grenadier Guards, and on attaining the rank of captain in 1842, proceeded to India as A.D.C. to his father, who was at that time Commander-in-Chief at Madras. It was at this period of his life that Lord Arthur Hay made the acquaintance of the late Dr. Jerdon, the distinguished Indian naturalist, who was then assistant-surgeon at Fort St. George. The two saw much of each other, and worked together at various branches of natural history; and the friendship thus formed was renewed when Dr. Jerdon retired from the service and returned to England in 1869. At the commencement of the Sutlej campaign of 1845–46 Lord A. Hay was appointed A.D.C. to Lord Hardinge, the Commander-in-Chief, and was present on his staff at the final decisive battle of Sobraon. On the 9th March, 1846, the treaty was concluded by which the whole of the hill-territory west of the Sutlej and Cashmere was handed over to the British; and a few days afterwards the second treaty, by which the Kashmir portion was transferred to the Maharajah Gholab Singh, was executed. Shortly after this Lord Arthur Hay, with other officers, among whom were Lord Elphinstone, Lord James Brown, Capt. H. Bates, and Lieut. A. Hardinge, obtained leave to visit this part of the Himalayas; and after being received with marked courtesy by the Maharajah at his ancestral residence of Jummoo, they crossed by the Banihal Pass into the valley of Kashmir. After spending a month there, Lord Arthur Hay and Lord Hardinge started for Ballastan, or Little Tibet, *viâ* the Kishengunga valley and the Dessai plains, and, after visiting Skardo, travelled on to Leh, in Ladakh, and thence through Rupshu to cross the high pass the Parang La (19,000 feet), finally ending their tour at Simla. The party met with a good deal of trouble and vexatious delay in this latter part of the journey, which at that period was of a venturesome, if not of a dangerous nature. Lord Arthur Hay was throughout this journey engaged in his favourite study, and made a large collection of the birds of the country.

During his stay in India, Lord Arthur Hay, although much interested in natural history, and on terms of intimacy with Dr. Jerdon, Mr. Blyth, Sir Walter Elliot, and other Indian naturalists, gave very little of the results of his studies to the public. We can only find published during this period the two articles in the 'Madras Journal' which stand at the head of the subjoined list.

During the next period of his life, Lord Arthur Hay, who assumed the title of Viscount Walden in 1862, on the death of his elder brother, Lord Gifford, was too much engaged with his military duties and other matters to be able to do much scientific work. In 1854 he accompanied the army sent out to Turkey, and thence to the Crimea, and took part in the campaign which resulted in the fall of Sebastopol. In 1866 Lord Walden finally retired from active service, and commenced anew a collection of birds and ornithological books in a house which he built for himself at Chislehurst, and which was for the ten following years his habitual residence. As will be seen from the list given below, he became a frequent contributor to 'The Ibis,' to the Zoological Society's 'Proceedings' and 'Transactions,' the 'Annals of Natural History,' and other periodicals, paying special attention to the birds of India and the Eastern Archipelago. In 1868 Lord Walden, upon the death of Sir George Clerk, was elected President of the Zoological Society of London, of the Council of which he was already a member, and retained this office, of which he performed the duties with the greatest zeal and success, until his death.

On the death of his father at a very advanced age in 1876, Lord Walden succeeded to the peerage and estates, and transferred his home and collections to the ancestral seat of Yester, in East Lothian, where he subsequently passed the greater part of his time. During the past two years Lord Tweeddale devoted special attention to the investigation of the avifauna of the Philippine Archipelago. Mr. A. H. Everett, a well-known collector, was specially engaged to visit the different islands of this group and make collections of their birds; and the results were given to the public in a series of thirteen papers published in the Zoological Society's 'Proceedings,' the last of which was finished only a few days before the death of the author.

Another important piece of ornithological work recently undertaken by Lord Tweeddale was the editing, with notes and additions, of the part relating to the birds of Blyth's Catalogue of the Mammals and Birds of Burma, which was left in a very unfinished state at the author's decease. Under Lord Tweeddale's "able and conscientious treatment," to use the words of Mr. Grote, the catalogue became a complete list of all the known Burman species, and a most useful work to ornithologists*.

Lord Tweeddale died at his English residence, Walden Cottage, Chiselhurst, on the 29th December, 1878, after a very short illness. His collections of birds and scientific books are bequeathed to his nephew, Mr. Robert Wardlaw Ramsay, a well-known member of this Union.

The following is, we believe, a nearly complete list of Lord Tweeddale's scientific publications.

1844–45.

(1) Descriptions of some supposed new, or imperfectly described Species of Birds. Madras Journ. xiii. pp. 145–164.

1847.

(2) Notice of the Habits of the large Indian Boa, or Rock Snake. Madras Journ. xiv. (pt. 2) pp. 74–77.

1866.

(3) Notes on Birds collected in Tenasserim and in the Andaman Islands. P. Z. S. 1866, p. 537.

(4) On the *Muscicapa melanictera* of Gmelin. Ibis, 1866, p. 316.

(5) Letter on *Brachypus gularis*. Ibis, 1866, p. 423.

1867.

(6) On the Rufous-tailed Shrikes. Ibis, 1867, p. 211.

(7) Letter on a Siamese *Garrulax*. Ibis, 1867, p. 381.

(8) Letter on *Loriculus edwardsi* and *Lanius lucionensis*. Ibis, 1867, p. 467.

1868.

(9) Note on *Lanius melanthes*, Swinhoe, and on *Lanius cephalomelas*, Bp. Ibis, 1868, p. 68.

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* See 'Journal of the Asiatic Society of Bengal,' Part II. Extra Number, August 1875. Catalogue of Mammals and Birds of Burma, by the late E. Blyth; with a Memoir, and Portrait of the Author. Hertford: printed by Stephen Austin and Sons, 1875.

1869.

(10) Remarks on Dr. Stoliczka's "Ornithological Observations in the Sutlej Valley." Ibis, 1869, p. 208.

(11) On the Cuculidæ described by Linnæus and Gmelin, with a Sketch of the Genus *Eudynamis*. Ibis, 1869, p. 324.

(12) Letter on Javan species of *Lanius*. Ibis, 1869, p. 242.

1870.

(13) On the Sun-birds of the Indian and Australian Regions. Ibis, 1870, p. 18.

(14) Letter on *Motacilla aureocapilla*. Ibis, 1870, p. 293.

(15) Descriptions of some new Species of Birds from Southern Asia. Ann. & Mag. N. H. ser. 4, v. p. 218, & p. 416.

1871.

(16) Notice of, and Introductory Remarks to, a Memoir on the Birds of the Island of Celebes. P. Z. S. 1871, p. 329.

(17) Notice of a new Species of *Polihierax* from Upper Burmah. P. Z. S. 1871, p. 627.

(18) Letter stating that *Prinia albogularis* is identical with *P. hodgsoni*, and that *Ephialtes jerdoni*=*E. malabaricus*. Ibis, 1871, p. 112.

(19) Descriptions of three new Species of Asiatic Birds. Ann. & Mag. N. H. ser. 4, vii. p. 241.

(20) On a new Species of *Trichoglossus* from Celebes. Ann. & Mag. N. H. ser. 4, viii. p. 281.

1872.

(21) On Birds recently observed or obtained in the Island of Negros, Philippines. By Arthur, Viscount Walden, F.R.S., and Edgar Leopold Layard, F.Z.S. Ibis, 1872, p. 93.

(22) On certain Species of *Cyornis*. Ibis, 1872, p. 330.

(23) On a Collection of Birds recently made by Mr. A. H. Everett in Northern Borneo. Ibis, 1872, p. 360.

(24) Notes upon *Polihierax fieldeni* and *Erythrosterna parva*. Ibis, 1872, p. 471.

(25) Description of a new Species of *Porzana* from the Himalayas. Ann. & Mag. N. H. ser. 4, ix. p. 47.

(26) Description of a supposed new Species of Cuckoo from Celebes. Ann. & Mag. N. H. ser. 4, ix. p. 305.

(27) On some supposed new Species of Birds from Celebes and the Togian Islands. Ann. & Mag. N. H. ser. 4, ix. p. 398.

(28) On a new Species of *Timalia* from Eastern India. Ann. & Mag. N. H. ser. 4, x. p. 61.

(29) On two new Species of Birds from the Philippine Islands. Ann. & Mag. N. H. ser. 4, x. p. 252.

1873.

(30) Notice of a Memoir on the Birds of the Philippine Archipelago. P. Z. S. 1873, p. 519.

(31) On a Collection of Birds recently made by Lieutenant Robert Wardlaw Ramsay, F.Z.S., in the Andaman Islands. Ibis, 1873, p. 296.

(32) Descriptions of three new Species of Asiatic Birds. Ann. & Mag. N. H. ser. 4, xii. p. 487.

1874.

(33) A List of the Birds known to inhabit the Island of Celebes. Trans. Z. S. viii. p. 23.

(34) Appendix to a List of Birds known to inhabit the Island of Celebes. Trans. Z. S. viii. p. 109.

(35) Letter on *Troglodytes punctatus*, Blyth. Ibis, 1874, p. 91.

(36) On a further Collection of Birds made by Lieutenant Robert Wardlaw Ramsay, F.Z.S., in the Andaman Islands. Ibis, 1874, p. 127.

(37) A Reply to Mr. Allen Hume's Review of 'Die Papageien' of Dr. Otto Finsch. Ibis, 1874, p. 270.

(38) Descriptions of two new Species of Birds. Ann. & Mag. N. H. ser. 4, xiii. p. 123.

(39) Descriptions of some new Species of Birds. Ann. & Mag. N. H. ser. 4, xiv. p. 156.

(40) On *Megapodius trinkutensis*, Sharpe. Ann. & Mag. N. H. ser. 4, xiv. p. 163.

1875.

(41) Letter on *Gecinus erythropygius*. Ibis, 1875, p. 148.

(42) Letter on *Palæornis melanorhynchus*. Ibis, 1875, p. 270.

(43) Notes on Birds from Burma. Ibis, 1875, p. 458.

(44) Descriptions of some supposed new Species of Birds. By Major Godwin-Austen, F.Z.S., and Arthur, Viscount Walden, F.R.S. Ibis, 1875, p. 250.

(45) Descriptions of some undescribed Species of Birds discovered by Lieutenant Robert Wardlaw Ramsay in Burma. Ann. & Mag. N. H. ser. 4, xv. p. 400.

(46) Description of a new Species of Pigeon from the Karen Hills. Ann. & Mag. N. H. ser. 4, xvi. p. 228.

1876.

(47) Letter on *Artamus leucorhynchus*. Ibis, 1876, p. 133.

(48) Note on the late Colonel Tickell's Manuscript Work entitled 'Illustrations of Indian Ornithology.' Ibis, 1876, p. 336.

(49) Description of a new Species of the Genus *Trichostoma* from the Island of Celebes. Ibis, 1876, p. 376.

(50) Letter on *Sterna albigena*. Ibis, 1876, p. 384.

1877.

(51) A List of the Birds known to inhabit the Philippine Archipelago. Trans. Z. S. ix. 1877, p. 125.

(52) Descriptions of three new Species of Birds from the Indian Region. P. Z. S. 1877, p. 366.

(53) Notes on the Species of the Genus *Batrachostomus* inhabiting the Indian Region. P. Z. S. 1877, p. 420.

(54) Reports on the Collections of Birds made during the Voyage of H.M.S. 'Challenger.'—No. II. On the Birds of the Philippine Islands. P. Z. S. 1877, p. 535.

(55) Contributions to the Ornithology of the Philippines.—No. I. On the Collection made by Mr. A. H. Everett in the Island of Luzon. P. Z. S. 1877, p. 686.

(56) Contributions to the Ornithology of the Philippines.—No. II. On the Collection made by Mr. A. H. Everett in the Island of Zebu. P. Z. S. 1877, p. 755.

(57) Contributions to the Ornithology of the Philippines.—No. III. On the Collection made by Mr. A. H. Everett in the Island of Mindanao. P. Z. S. 1877, p. 816.

(58) Letter on *Anthus gustavi*, Swinhoe. Ibis, 1877, p. 258.

(59) Notes on a Collection of Birds made by Mr. E. C. Buxton in the District of Lampong, S.E. Sumatra. Ibis, 1877, p. 283.

(60) Description of four new Species of Birds from the Indian Region. Ann. & Mag. N. H. ser. 4, xx. p. 94.

(61) Descriptions of some new Species of Birds. Ann. & Mag. N. H. ser. 4, xx. p. 533.

(62) Letter concerning the editing of a Catalogue of Birds of Burma written by Mr. Blyth. Ibis, 1877, p. 385.

(63) Letter containing some remarks upon his additional notes to Mr. Blyth's 'Catalogue of the Birds of Burma;' chiefly relating to the Genus *Batrachostomus*. Ibis, 1877, p. 388.

(64) Note on *Pellorneum tickelli*, Blyth. Ibis, 1877, p. 451.

(65) Letter containing remarks upon 'Stray Feathers' for April 1877. Ibis, 1877, p. 487.

1878.

(66) Contributions to the Ornithology of the Philippines.—No. IV. On the Collection made by Mr. A. H. Everett in the Islands of Dinagat, Bazol, Nipah, and Sakuyok. P. Z. S. 1878, p. 106.

(67) On a new Philippine Genus and Species of Bird. P. Z. S. 1878, p. 114.

(68) On a new Species of the Genus *Buceros*. P. Z. S. 1878, p. 277.

(69) Contributions to the Ornithology of the Philippines.—No. V. On the Collection made by Mr. A. H. Everett in the Island of Negros. P. Z. S. 1878, p. 280.

(70) Contributions to the Ornithology of the Philippines.—No. VI. On the Collection made by Mr. A. H. Everett in the Island of Leyte. P. Z. S. 1878, p. 339.

(71) Contributions to the Ornithology of the Philippines.—No. VII. On the Collection made by Mr. A. H. Everett in the Island of Panaon. P. Z. S. 1878, p. 379.

(72) Contributions to the Ornithology of the Philippines.—No. VIII. On some Luzon Birds in the Museum of Darmstadt. P. Z. S. 1878, p. 429.

(73) Contributions to the Ornithology of the Philippines.—No. IX. On the Collection made by Mr. A. H. Everett in the Island of Palawan. P. Z. S. 1878, p. 611.

(74) Contributions to the Ornithology of the Philippines.—No. X. On the Collection made by Mr. A. H. Everett in the Island of Bohol. P. Z. S. 1878, p. 708.

(75) Contributions to the Ornithology of the Philippines.—No. XI. On the Collection made by Mr. A. H. Everett at Zamboanga, in the Island of Mindanao. P. Z. S. 1878, p. 936.

(76) Notes on the *Dicruridæ,* and on their Arrangement in the Catalogue of the Collection in the British Museum. Ibis, 1878, p. 69.

(77) Letter containing remarks upon the Genus *Artamus.* Ibis, 1878, p. 383.

(78) On *Poliohierax insignis.* Rowley's Ornithological Miscellany, vol. iii. p. 169.

1879.

(79) Contributions to the Ornithology of the Philippines.—No. XII. On the Collection made by Mr. A. H. Everett in the Island of Basilan. P. Z. S. 1879, p. 68.

A General Index to the First Three Series of 'The Ibis.'

For some time past I have had in preparation a General Index to the first three series of 'The Ibis' (volumes i. to xviii.). The necessity of a comprehensive index to the names contained in a large series of volumes such as 'The Ibis' now consists of has become more and more apparent to those who are in the habit of constantly referring to its pages. The completion of the third series seemed a fitting period at which to make such an index; and accordingly the work was begun. To make this index more valuable, it was determined to give not only the generic and specific names as they now appear in the index to each volume, but also to combine with them, in alphabetical arrangement, the reversed order, where the specific name is the initial word. This has exactly doubled the magnitude of my task; but I am certain that the increased utility of the index will not only justify the extra trouble it has involved, but also the additional expense that has been incurred. The readiest process of making an index of this sort is not so easy a matter as would appear at first sight; but after some consideration, I adopted the following plan as being the quickest in the end and as involving the least chance of errors. The index of each volume was copied out, the year being inserted after the specific name. These indexes were then cut into slips and their contents arranged together in alphabetical order. I had thus the combined indexes of the eighteen volumes in which the generic name alone was the initial word. This arranged index was then recopied, and, by the use of transfer paper, a double impression was obtained. In these copies I had the generic name inserted in brackets after the specific name as well as before. In one of the indexes thus prepared the first generic name was erased, and in the other the second. The two indexes were then cut into slips and combined in alphabetical order. The MS. was then ready for press. In this part of the work I was fortunate in obtaining much help; but at each stage I have myself revised the work; and the result is, I have every reason to believe, an accurate combination of all the indexes. The volume, which is now almost complete, will contain about 420 pages of closely printed index matter, arranged in double columns. To the end of the generic and specific index an index of the birds figured in the three series is added.

At the Meeting of the B. O. U. held in May of last year (1878), the proposal to print this General Index was approved of, and a sufficient sum of money was guaranteed to justify the commencement of printing the work. At the Meeting to be held next month I hope to have the volume ready for distribution.—O. S.

THE IBIS.

FOURTH SERIES.

No. XI. JULY 1879.

XX.—*Contributions to the Ornithology of Borneo.* By R. Bowdler Sharpe, F.L.S., F.Z.S., &c.—Part IV.* *On the Birds of the Province of Lumbidan, North-western Borneo.*

(Plates VII., VIII.)

During the past two years I have examined three large collections from North-western Borneo, all of them of very great interest. The first of these was sent by the Hon. Hugh Low, now British Resident at Perak, and well known to ornithologists for the researches which he has made into the natural history of the island of Borneo, where he resided for many years. By means of the collectors trained by himself, Mr. Low was enabled to send along with the last consignment a large number of eggs of Bornean Birds, in every case accompanied by the old female, trapped on the nest in the way in which the Malays are such adepts.

In my last paper I noticed a small collection sent from Sarawak by my old friend Governor Ussher, whose name, already familiar to the readers of 'The Ibis' for his successful ornithological expeditions in Western Africa, will meet with a hearty welcome in the new collecting-ground to which he has now devoted himself. I owe an apology to Governor Ussher for not having already placed on record some account of the fine series of birds which he sent over to me for description; but during the last few months collections have followed each other in such quick succession that I have had to revise each paper as soon as it was finished, in order to incorporate the new material which was submitted to me. The great interest attaching to Governor Ussher's collections consists in the very careful manner in which each skin is prepared and the locality recorded, so that we have now exact data for determining the relations of the avifauna of Labuan to that of the coast of Borneo opposite. This is the more necessary, as Mr. Low informs me that the collections forwarded by him to England for so many years, and recorded in each instance as from the island of Labuan, were by no means entirely from the island itself, but were supplemented by large additions from the mainland*.

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* For Part iii. see Ibis, 1878, p. 414.

Governor Ussher writes to me:—"The accompanying collections have been made between May 1876 and March 1877. They would have been more extensive as regards the mainland of Borneo, did not official duties prevent my going over frequently; and, moreover, I was invalided from December 1876 to February 1877, when I had to go off to Hongkong. The most complete collection is the one made in the island of Labuan itself and its dependent islets, Daat, Pappan, Kurâman, Big and Little Rusúkan, and Enoe. With the exception of a *Euplocamus nobilis*, from Sarawak, and a few birds from the Láwas river, the majority of the Bornean birds are from the Kadyan settlement of Lumbidan, on the north-west coast of Borneo, and from the vicinity of Brunei, its capital; a few skins are included from Moara Island, at the mouth of the Brunei river."

I had hardly completed my description of Governor Ussher's collections, when I was requested by the authorities of the

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* I have lately read before the Zoological Society of London a paper containing an exact list of Labuan birds, as determined by Governor Ussher and Mr. Treacher (see P. Z. S. 1879, p. 317).

Oxford University Museum to prepare an account of a very large consignment of birds presented to that institution by Mr. W. H. Treacher, the present Acting Governor of Labuan. Four large cases made up the latter's collection; and, as in the case of that of Governor Ussher, every specimen had the exact locality recorded; so that we may now feel certain that we have a very fair representation of the avifauna of North-western Borneo.

Mr. Treacher, after Governor Ussher's return to England, obtained a great many birds from the Lawas river, as well as from Lumbidan and from Brunei, together with a small collection from the neighbourhood of Kina Balu. This last I have deemed of sufficient importance to be the subject of a separate paper. Mr. Burbidge has also submitted to me a few birds from the Lawas river, which are likewise here noticed.

Circus spilonotus, Kaup.

Circus spilonotus, Sharpe, Cat. B. i. p. 58, et Ibis, 1876, p. 30.

Brunei (*coll. Ussher*).

The collections sent by Governor Ussher contained both adult and young birds of this Harrier; and on comparing the young birds obtained by him with those collected by Mr. Alfred Everett at Sibu (*cf.* Sharpe, *l. c.*), it is evident that the latter were properly identified by me, and that *C. æruginosus* does not visit the Malay archipelago.

Astur trivirgatus (Temm.).

Astur trivirgatus, Salvad. Ann. Mus. Genov. v. p. 17; Sharpe, Cat. B. i. p. 105.

Brunei (*coll. Treacher*). Native name "Alang."

A specimen in nearly adult plumage, with full crest, but only commencing to show indications of the rufous breast.

Astur soloensis (Horsf.).

Astur soloensis, Sharpe, Cat. B. i. p. 114.

Micronisus soloensis, Salvad. *t. c.* p. 17.

A young specimen sent by Governor Ussher from Lumbidan. It was previously only known as an inhabitant of Borneo from a specimen obtained at Banjermassing by Motley.

As, however, the species is a visitant to the Malay archipelago from China, and extends even to New Guinea, it is doubtless a regular migrant *viâ* Borneo.

SPIZAETUS ALBONIGER (Blyth).

Spizaetus alboniger, Salvad. *t. c.* p. 14; Sharpe, Cat. B. i. p. 271.

Láwas river (*coll. Ussher, Treacher*).

BUTASTUR INDICUS (Gm.).

Butastur indicus, Sharpe, Cat. B. i. p. 297.

Poliornis indica (Gm.); Salvad. *t. c.* p. 9.

Brunei (*coll. Ussher*); Lumbidan (*coll. Treacher*).

This species was mentioned by Count Salvadori as likely to occur in Borneo, as it is found from China and Japan southwards to the Moluccas, even to New Guinea, so that it was a probable migrant to Borneo. It would seem to be by no means rare at certain seasons in Labuan and N.W. Borneo, as a good series is in Governor Ussher's collection and eight specimens in Mr. Treacher's. Native name "Alang alap alap."

HALIAETUS LEUCOGASTER (Gm.).

Haliaetus leucogaster, Sharpe, Cat. B. i. p. 307.

Cuncuma leucogaster (Gm.); Salvad. *t. c.* p. 5.

Brunei (*coll. Ussher*).

HALIASTUR INTERMEDIUS, Gurney.

Haliastur intermedius, Sharpe, Cat. B. ii. p. 314.

Haliastur indus, Salvad. *t. c.* p. 12.

Brunei (*coll. Ussher*).

ELANUS HYPOLEUCUS, Gould.

Elanus hypoleucus, Sharpe, Cat. B. i. p. 338; Salvad. *t. c.* p. 12.

Brunei (*coll. Treacher*). Native name "Alang Putik."

A fine adult specimen. This black-winged Kite is an inhabitant of Java, Borneo, and the Philippine Islands, and was originally described from Celebes. In Borneo it has been obtained by Motley and Schwaner at Banjermassing, but has

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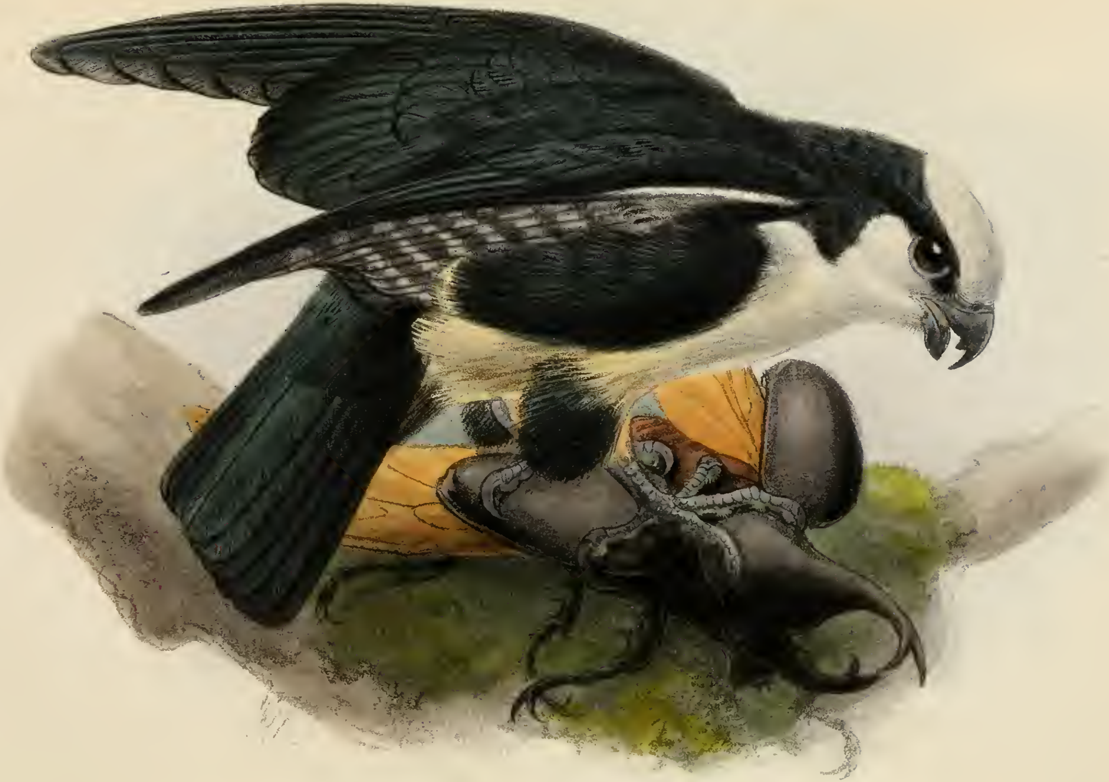


J G Keulemans lith

Hanhart imp

MICROHIERAX LATIFRONS.

never been met with in the north-eastern portion of the island before.

MICROHIERAX LATIFRONS, sp. n. (Plate VII.)

M. similis *M. fringillario* sed fronte latissimâ albâ et fasciâ albâ hujus speciei per latera colli decurrente nullâ distinguendus. Long. tot. 6·5, culm. 0·45, alæ 4·0, caudæ 2·3, tarsi 0·75.

It was my kind friend Mr. J. H. Gurney who some months ago showed me a specimen of this *Microhierax* from Borneo, and drew my attention to its broad white forehead as probably indicating a distinct species. On examining our series, however, I found that there were several specimens in the Museum from Borneo which were inseparable from the true *M. fringillarius* of Malacca, and I hesitated to separate the white-fronted bird on the strength of a single specimen. Now, however, that Mr. Treacher sends four specimens, all of them precisely similar, it is impossible to resist the conclusion that the species is really distinct. It will probably prove to be confined to the north-western district of the island, as the birds presented to the Museum by Rajah Brooke from Sarawak are not to be distinguished from the ordinary Malaccan type. Three of Mr. Treacher's specimens are from the Láwas river, and one from Lumbidan. Governor Ussher also procured two in the latter province.

FALCO PEREGRINUS, Tunstall.

Falco communis, Gm.; Salvad. *t. c.* p. 1; Sharpe, Cat. B. i. p. 376.

Lumbidan (*coll. Treacher*).

An adult male, without indication of a native name. It is also in Mr. Treacher's Labuan collection; and I recently saw a specimen sent from Sandakan, in N.E. Borneo, which afterwards passed into Lord Tweeddale's collection.

KETUPA JAVANENSIS, Less.

Ketupa javanensis, Salvad. *t. c.* p. 20; Sharpe, Cat. B. ii. p. 8.

Brunei (*coll. Ussher*).

Already known from other parts of Borneo and Labuan.

BUBO ORIENTALIS (Horsf.).

Bubo orientalis, Sharpe, Cat. B. ii. p. 39.

Bubo sumatranus (Raffl.); Salvad. *t. c.* p. 40.

Moara Island (*coll. Ussher*).

SCOPS LEMPIJI (Horsf.).

Scops lempiji, Sharpe, Cat. B. ii. p. 91.

Brunei (*coll. Treacher*); Láwas river (*coll. Treacher*).

The two specimens sent by Mr. Treacher are of a darker brown, and by no means so rufous as the majority of Malaccan skins; but they do not seem to me to vary more than do the extremes of the allied species, *Scops malabaricus,* as represented by a series from Ceylon in the British Museum.

SCOPS RUFESCENS (Horsf.).

Scops rufescens Salvad. *t. c.* p. 19; Sharpe, Cat. B. ii. p. 102.

Láwas river (*coll. Treacher*).

Rather darker and browner than the Malaccan specimens in the Museum, the plumage being probably that of the brown phase of this Owl.

SYRNIUM LEPTOGRAMMICUM (Temm.).

Syrnium leptogrammicum, Sharpe, Cat. B. ii. p. 264.

Ciccaba leptogrammicum, Salvad. *t. c.* p. 20.

Lumbidan (*coll. Treacher*); Láwas river (*coll. Ussher, Treacher*).

The three from Lumbidan are adults. Native name "Lantugoh" (*Treacher*). One of the Lawas birds still retains a good deal of the nestling buffy-white down.

PHODILUS BADIUS (Horsf.).

Phodilus badius, Salvad. *t. c.* p. 21; Sharpe, Cat. B. ii. p. 309.

Láwas river (*coll. Treacher*); Brunei (*coll. Ussher*).

NINOX SCUTULATA (Raffl.).

Ninox scutulata, Sharpe, Cat. B. ii. p. 156.

Ninox borneensis, Bp.; Salvad. *t. c.* p. 18.

Mr. Treacher has sent a single example from the Láwas river, which is remarkable, on comparison with his series of Labuan birds, for its extremely dark and uniform chest, as well as its browner tail crossed by four blackish bands, the intermediate light spaces not being so ashy as in the specimens from Labuan. Nevertheless I can only look upon it as representing a very old stage of plumage; for it appears beyond doubt that the younger the bird the lighter its coloration (especially below, where the feathers are all broadly edged with white), the larger the spots on the scapulars, and the more numerous the number of bands on the tail. Wing 7·2 inches.

HARPACTES DIARDI (Temm.).

Pyrotrogon diardi, Salvad. *t. c.* p. 28.

Lumbidan (*coll. Ussher, Treacher*).

Native name "Burong Angie," according to Mr. Treacher.

HARPACTES DUVAUCELI (Temm.).

Pyrotrogon duvauceli, Salvad. *t. c.* p. 29.

Lumbidan (*coll. Treacher*); Láwas river (*coll. Treacher*).

The native name is given by Mr. Treacher as "Angie Kuchik."

MEGALÆMA VERSICOLOR (Raffl.).

Megalæma versicolor, Marsh. Monogr. Capit. pl. xxiii.

Chotorhea versicolor, Salvad. *t. c.* p. 33.

Lawas river (*coll. Treacher*); Lumbidan (*coll. Ussher, Treacher*).

Mr. Treacher states that the native name is "Luntúgoh."

MEGALÆMA MYSTACOPHANES (Temm.).

Megalæma mystacophanus, Marsh. Monogr. Capit. pl. xix.

Chotorhea mystacophanus (Temm.); Salvad. *t. c.* p. 34, tav. 1.

Láwas river (*coll. Treacher*); Lumbidan (*coll. Ussher*).

MEGALÆMA HENRICI (Boie).

Megalæma henricii, Marsh. Monogr. Capit. p. 71, pl. xxxi.

Láwas river (*coll. Treacher*).

This species is new to Borneo. I have compared the specimen sent by Mr. Treacher, which is quite adult, with others from Malacca in the British Museum, and find them quite identical.

XANTHOLÆMA DUVAUCELI (Less.).

Xantholæma duvauceli, Salvad. *t. c.* p. 38.

Megalæma duvauceli, Marsh. Monogr. Capit. pl. xxxiii. fig. 1.

Láwas river (*coll. Treacher*); Lumbidan (*coll. Ussher*); Moara Island (*coll. Ussher*).

CALORHAMPHUS FULIGINOSUS (Temm.).

Calorhamphus fuliginosus, Marsh. Monogr. Capit. pl. lxxi.; Salvad. *t. c.* p. 39.

Lumbidan (*coll. Ussher, Treacher*); Láwas river (*coll. Treacher*).

The native name in Lumbidan is stated by Mr. Treacher to be "Betagah."

JYNGIPICUS AURANTIIVENTRIS, Salvad.

Yungipicus aurantiventris, Salvad. *t. c.* p. 41, tav. iv. fig. 2.

Lumbidan (*coll. Ussher, Treacher*).

Native name "Burong Anie putie" (*Treacher*).

JYNGIPICUS FUSCO-ALBIDUS, Salvad.

Yungipicus fusco-albidus, Salvad. *t. c.* p. 42.

Lumbidan (*coll. Treacher*).

Native name "Burong Anie" (*Treacher*).

XYLOLEPES VALIDUS (Temm.).

Xylolepes validus, Salvad. *t. c.* p. 43.

Lumbidan (*coll. Ussher, Treacher*); Láwas river (*coll. Treacher*).

Native name in Lumbidan "Ouit Tuit," according to Mr. Treacher.

HEMICERCUS SORDIDUS (Eyton).

Hemicercus sordidus, Salvad. *t. c.* p. 46.

Lumbidan (*coll. Low, Ussher*).

Count Salvadori has given a very complete sketch of these little Woodpeckers, of which he recognizes no less than four allied species, examples of all of which are lying before me, as follows:—

1. *Hemicercus concretus.*

a. Java. *b.* Borneo. *c.* Sumatra (*Wallace*).

2. *Hemicercus hartlaubi.*

a, b, ♂ ♀, *c.* Java (*Wallace*).

3. *Hemicercus sordidus.*

a, ad. Indian archipelago. *b,* ♀ ad. Malacca (*Charlton*; type of species). *c.* juv. Malacca (*Charlton*). *d, e, f,* ♂ ad. Malacca. *g,* ♂ ad., *h,* ♂ juv. Malacca (*Harvey*). *i,* ♂. Singapore (*Wallace*). *k,* ♂. Banjermassing (*Motley*). *l,* ♂. Sarawak (*Wallace*). *m, n,* ♂ ♀ ad. Lumbidan (*Low*).

4. *Hemicercus brookeanus.*

a, b, ♂ ♀ ad. Borneo. *c,* ♀. Singapore (*Wallace*).

That these species must be reduced in number is very evident to me; and, to take them in their reverse order, I cannot believe *H. brookeanus* to be more than a yellow-stained example of *H. sordidus,* intermediate specimens being plentiful, while the Bornean birds show several white- as well as yellow-edged feathers.

As regards *H. sordidus,* of which we have the typical (♀) example in the British Museum, it seems to be a distinct species; but, as will be seen below, it will have to bear the older title of *H. concretus.*

H. hartlaubi is very closely allied to *H. sordidus*; but after having seen a large number of the latter, all precisely similar, I consider that the entirely red crest is a good character for distinguishing the species. Its habitat is Malacca (*J. Gould*), Java (*Wallace*), Sumatra (*Temminck*), Borneo (*mus. Turati*). The last locality is, perhaps, doubtful. I should not be surprised if *H. hartlaubi* turned out to be the very old full-plumaged *H. sordidus.*

H. concretus of Temminck is founded on a young bird; and I am luckily able to trace from our series of specimens in the Museum the progress towards maturity. The crown at first is entirely fawn-colour, with dusky grey bars, the male having an occipital crest of pale red, the female wanting this red crest. Mr. Gould considers the red crest to indicate an adult stage, with a grey-headed female; and as such he has figured them in the twenty-eighth Part of the 'Birds of Asia;' but the incompleteness of the plumage is proved by a specimen of a young female in the Museum without the red crest, changing by a direct moult into the ordinary grey-headed form.

I was at first disposed to consider that a difference existed in the size of the bill, and that the Javan species had a much smaller one than the Malaccan. I find, however, that in every locality the birds vary greatly in the length and size of bill, and very great differences are apparent in Mr. Low's series from N.W. Borneo.

The above was written on Mr. Low's specimens before Mr. Ussher's collection arrived. All four of his specimens are from Lumbidan. A fully adult male and two females, as well as an interesting young bird with fawn-coloured crest, are in the series sent by Mr. Ussher; the last-named bird is commencing to gain his full plumage by the appearance of scarlet feathers in the centre of the crown. See also Mr. Hume's remarks ('Stray Feathers,' 1878, pp. 128–131).

LEPOCESTES PORPHYROMELAS (Boie).
Lepocestes porphyromelas, Salvad. *t. c.* p. 48.
Lumbidan (*coll. Treacher*).
Native name "Blatock bŭr palang."

CALLOLOPHUS PUNICEUS (Horsf.).
Callolophus puniceus, Salvad. *t. c.* p. 49.
Lumbidan (*coll. Treacher*).

CALLOLOPHUS MENTALIS (Temm.).
Callolophus mentalis, Salvad. *t. c.* p. 49.
Brunei (*coll. Ussher*); Láwas river (*coll. Treacher*); Lumbidan (*coll. Ussher*).

CALLOLOPHUS MALACCENSIS (Lath.).
Callolophus malaccensis, Salvad. *t. c.* p. 50.
Moara Island (*coll. Ussher*); Brunei (*coll. Ussher*); Lumbidan (*coll. Treacher*); Láwas river (*coll. Treacher*).

The native name in Lumbidan is "Blatock," according to Mr. Treacher.

ALOPHONERPES PULVERULENTUS (Temm.).
Alophonerpes pulverulentus, Salvad. *t. c.* p. 51.
Lumbidan (*coll. Treacher*).
Native name "Blatock bŭsar" (*Treacher*).

THRIPONAX JAVENSIS (Horsf.).
Thriponax javensis, Salvad. *t. c.* p. 52.
Láwas river (*coll. Treacher*); Lumbidan (*coll. Ussher, Low*).

TIGA JAVANENSIS (Ljungh.).
Tiga javanensis, Salvad. *t. c.* p. 54.
Láwas river (*coll. Treacher*).

GAUROPICOIDES RAFFLESI (Vig.).
Gauropicoides rafflesi, Salvad. *t. c.* p. 54.
Láwas river (*coll. Ussher*); Lumbidan (*coll. Treacher*).
Native name "Ouit Tuit" (*Treacher*).

MEIGLYPTES TRISTIS (Horsf.).
Meiglyptes tristis, Salvad. *t. c.* p. 56.
Lumbidan (*coll. Ussher, Treacher*).
Native name "Burong Anie" in Lumbidan (*Treacher*).

MEIGLYPTES TUKKI (Less.).
Meiglyptes tukki, Salvad. *t. c.* p. 57.
Lumbidan (*coll. Ussher, Treacher*); Láwas river (*coll. Treacher*).
Native name in Lumbidan "Blatock Kuchick" (*Treacher*).

MICROPTERNUS BADIOSUS (Temm.).
Micropternus badiosus, Salvad. *t. c.* p. 58.
Brunei (*coll. Ussher*); Lumbidan (*coll. Ussher, Treacher*); Láwas river (*coll. Treacher*).
Native name in Lumbidan "Blatock Peraug" (*Treacher*).

SASIA ABNORMIS (Temm.).
Sasia abnormis, Salvad. *t. c.* p. 60.
Lumbidan (*coll. Ussher, Treacher*).
Native name "Etek badan."

In Mr. Low's collection of Lumbidan birds was a specimen of a *Sasia* which appeared so different from *S. abnormis* that at first I was disposed to consider it of a distinct species. It differs from all the eastern species of the genus in its dull greyish under surface, and in the entire absence of any fawn-colour on the rump or lower back; indeed it is much more like the African *S. africana.* As, however, only one specimen was sent, I fancy that it may turn out to be only the immature bird of *S. abnormis,* although the size is somewhat smaller than is usual in the last-named species. The following is a description of Mr. Low's specimen:—

S. suprà olivaceo-viridis, pileo obscuriore; supracaudalibus caudâque nigerrimis; tectricibus alarum dorso concoloribus; alis brunneis extùs olivaceo-viridi lavatis, intùs albido marginatis; subtùs schistaceo-fusca vix olivaceo-viridi lavata, abdomine imo et subcaudalibus pallidè rufescentibus; maculâ nasali, mento summo, genis anticis et maculâ paroticâ rufescentibus; subalaribus sericeo-albis, margine alari olivascente; rostro parvo, nigerrimo; pedibus flavicantibus. Long. tot. 2·9, culm. 0·45, alæ 2·0, caudæ 0·85, tarsi 0·55.

INDICATOR ARCHIPELAGICUS, Temm.

Indicator archipelagicus, Salvad. *t. c.* p. 61; Sharpe in Rowley's Orn. Misc. vol. i. p. 97, et P. Z. S. 1878, p. 794.

Lumbidan (*coll. Treacher*).

For this rare bird, entirely new to this part of Borneo, no native name is given, showing, apparently, that it is unknown to the hunters.

CUCULUS BASALIS.

Chrysococcyx basalis (Horsf.); Salvad. *t. c.* p. 62.

Lumbidan (*coll. Ussher*).

CUCULUS XANTHORHYNCHUS (Horsf.).

Cuculus xanthorhynchus, Salvad. *t. c.* p. 62.

Lumbidan (*coll. Treacher*).

Two adult birds. Native name "Jan chuvie."

PENTHOCERYX PRAVATUS (Horsf.).

Penthoceryx pravatus, Salvad, *t. c.* p. 63.

Lumbidan (*coll. Treacher*).

Native name "Teap apie."

SURNICULUS LUGUBRIS (Horsf.).

Surniculus lugubris, Salvad. *t. c.* p. 63.

Láwas river (*coll. Treacher*).

CACOMANTIS MERULINUS (Scop.).

Cacomantis merulinus, Salvad. *t. c.* p. 64.

Lumbidan (*coll. Ussher*).

HIEROCOCCYX FUGAX (Horsf.).

Hierococcyx fugax, Salvad. *t. c.* p. 65.

Lumbidan (*coll. Ussher*) ; Láwas river (*coll. Treacher*).

CUCULUS CONCRETUS, S. Müll.

Cuculus concretus, Salvad. *t. c.* p. 66.

An adult specimen from Lumbidan in Mr. Treacher's collection.

EUDYNAMIS MALAYANA, Cab.

Láwas river (*coll. Treacher*) ; Moara Island (*coll. Ussher*).

RHINORTHA CHLOROPHÆA (Raffl.).

Rhynortha chlorophæa, Salvad. *t. c.* p. 69.

Láwas river (*coll. Treacher*) ; Lumbidan (*coll. Treacher*).

Native name "Tagamoo."

POLIOCOCCYX SUMATRANUS (Raffl.).

Poliococcyx sumatranus, Sharpe, P. Z. S. 1873, p. 606.

Rhopodytes sumatranus, Salvad. *t. c.* p. 73.

Lumbidan (*coll. Treacher*) ; Láwas river (*coll. Treacher*).

The native name in Lumbidan is said to be "Nampak Kuchik."

RHOPODYTES ERYTHROGNATHUS (Hartl.).

Rhopodytes erythrognathus, Sharpe, P. Z. S. 1873, p. 604.

Rhamphococcyx erythrognathus, Salvad. *t. c.* p. 74.

Lumbidan (*coll. Ussher, Treacher*) ; Láwas river (*coll. Treacher*).

Native name "Nampak busar," according to Mr. Treacher.

ZANCLOSTOMUS JAVANICUS (Horsf.).

Lumbidan (*coll. Ussher, Treacher*) ; Láwas river (*coll. Treacher*) ; Brunei (*coll. Ussher*).

Native name "Nampak."

CARPOCOCCYX RADIATUS (Temm.).

Carpococcyx radiatus, Salvad. *t. c.* p. 76.

Brunei (*coll. Ussher*).

Governor Ussher had this specimen alive, and says that it walked on the ground like a Crow. The soft parts of the head he describes as follows :—" Bill pale bright green, becoming light cobalt near the gape; skin round the eye cobalt, shaded with light green; iris dark brown."

CENTROPUS JAVANENSIS (Dum.).
Centropus javanensis, Salvad. *t. c.* p. 76.
Lumbidan (*coll. Ussher*).

ANORHINUS GALERITUS (Temm.).
Anorhinus galeritus, Salvad. *t. c.* p. 79.
Lumbidan (*coll. Treacher*); Láwas river (*coll. Ussher*).

HYDROCISSA CONVEXA (Temm.).
Hydrocissa convexa, Salvad. *t. c.* p. 80.
Láwas river (*coll. Ussher, Treacher*).

HYDROCISSA ALBIROSTRIS (Shaw).
Hydrocissa albirostris, Salvad. *t. c.* p. 82.
Lumbidan (*coll. Ussher*).

CRANORRHINUS CORRUGATUS (Temm.).
Cranorrhinus corrugatus, Salvad. *t. c.* p. 86.
Láwas river (*coll. Ussher, Treacher*).

RHYTIDOCEROS SUBRUFICOLLIS (Blyth).
Rhytidoceros subruficollis, Horsf. & Moore, Cat. B. Mus. E.I. Co. ii. p. 600.
Láwas river (*coll. Ussher, Treacher*).
New to Borneo.

BUCEROS RHINOCEROS, L.
Buceros rhinoceros, Elliot, Monogr. Bucerot. pt. iii.
Buceros rhinoceroides, Temm.; Salvad. *t. c.* p. 87.
Láwas river (*coll. Treacher*).

I am indebted to Mr. F. W. Burbidge for the following note:—"The Rhinoceros Hornbill is very often seen in a state of domesticity, enjoying at the same time perfect liberty. When very young they are taken from the nest, and accommodated with a bit of old cloth in a basket, as a bed, being fed on rice and soft fruits. Until they are strong enough to wander about they sit on their haunches wheezing and shrieking all day long, and continually clamouring for food. Their beauty is about equal to that of a very fat badly-plucked goose. If well fed, however, they soon gain strength and assume their plumage; and then they flap about the house and steal or beg for food. At one place where I stayed collecting for some time, a native, in whose house I had established myself, had reared a very fine specimen of this bird. It was the most voracious brute I ever saw. It was omnivorous, and nothing came amiss to it or seemed to disagree with it. 'Pepsine' or 'taraxene' it would have been sheer waste to have bestowed on that bird! Sherry and bitters could not have improved his appetite much! It was a fine full-grown male, and such a jolly fellow into the bargain! I christened him 'Clap-trap,' for want of a better name; but on second thoughts 'Snap-trap' would have been better, since a more persevering 'snapper up of unconsidered trifles' I never saw in bird-society before. I fed him a great deal; and so we became fast friends, and directly he caught sight of me he would come to beg for more food; very often he would descend from a tall camphor-wood tree, which stood a hundred yards or so from the house, in the jungle, to the top of which he was fond of going to sun his wings and clean himself after a meal. When he was very hungry it was only by tying a string to one of his legs and 'mooring' him to the side of the house that he could be prevented from eating off the same plate as myself, or putting his great horned head into the rice-dish or curry-bowl. Bones of a fowl, curried or not, were gobbled up instantly; and the wonder to me was how he managed to 'bolt' big bones and tough biscuits without choking himself. He succeeded, however; his *Fors* was a lucky one. Whatever was thrown anywhere near his head was sure to fall into his open bill; indeed I never saw a dog that could catch food in his mouth better. Every thing was caught on the point of his great bill, and then tossed into the air, being again caught and swallowed; this tossing was always performed. Bones, the entire bodies of small birds from which the skins had been removed for preserving, lumps of bread, biscuits, fruit, fish, or wet rice, shavings, and even nodules of moist earth, all seemed equally welcome; and after taking in a cargo of provisions which would have formed an ample meal for a pig twenty times his own weight, he would 'saw the air' with his great wings, and, having gained his favourite perch on the tall camphor-tree, would sun himself and plume his wings, and shriek until he became hungry rather than hoarse."

RHINOPLAX VIGIL (Forst.).
Rhinoplax vigil, Elliot, Monogr. Bucerotidæ, pt. i.
Rhinoplax scutatus, Bodd.; Salvad. *t. c.* p. 88.
Láwas river (*Treacher*).

MEROPS PHILIPPINUS (L.).
Merops philippinus, Salvad. *t. c.* p. 89.
Lumbidan (*coll. Treacher*).
Two specimens. Native name "Tampak kwio."

MEROPS SUMATRANUS, Raffl.
Merops bicolor, Bodd.; Salvad. *t. c.* p. 90.
Lumbidan (*coll. Ussher*).

NYCTIORNIS AMICTA (Temm.).
Nyctiornis amicta, Salvad. *t. c.* p. 91.
Láwas river (*coll. Treacher*).

ALCEDO MENINTING, Horsf.
Alcedo meninting, Salvad. *t. c.* p. 93.
Láwas river (*coll. Treacher*).

ALCEDO EURYZONA, Temm.
Alcedo euryzona, Sharpe, Monogr. Alced. pl. viii.; Salvad. *t. c.* p. 95.
Láwas river (*coll. Treacher*).

A specimen with the rufous breast, identified by me as the young bird (*l. c*). The existence of this species in Borneo has hitherto depended upon the authenticity of a specimen in the Philadelphia Museum; and as the locality has always been open to doubt, the finding of the bird on the Láwas river by Mr. Treacher is a point of considerable interest. From Mr. Hume's remarks ('Stray Feathers,' 1878, pp. 82, 83) it would appear that the bird I considered to be the young of this species is probably the old female.

PELARGOPSIS LEUCOCEPHALA (Gm.).
Pelargopsis leucocephala, Salvad. *t. c.* p. 95.
Lumbidan (*coll. Ussher, Treacher*); Brunei (*coll. Ussher*).
Native name "Sakak busar."

CEYX DILLWYNNI, Sharpe.
Ceyx dillwynni, Sharpe, P. Z. S. 1879, p. 330.
Láwas river (*coll. Treacher*); Brunei (*coll. Ussher*); Lumbidan (*coll. Treacher*).
Native name "Mantics merah."

HALCYON COROMANDA (Lath.).
Halcyon coromanda, Sharpe, Monogr. Alced. pl. 57.
Callialcyon coromanda, Salvad. *t. c.* p. 101.
Láwas river (*coll. Treacher*).

HALCYON PILEATA (Bodd.).
Halcyon pileata, Sharpe, Monogr. Alced. pl. 62.
Entomobia pileata, Salvad. *t. c.* p. 102.
Brunei (*coll. Ussher*); Láwas river (*coll. Treacher*).

CARCINEUTES MELANOPS (Temm.).
Carcineutes melanops, Sharpe, Monogr. Alced. pl. 97.
Lacedo melanops (Temm.); Salvad. *t. c.* p. 104.
Lumbidan (*coll. Treacher*); Láwas river (*coll. Treacher*); Brunei (*coll. Ussher*).

EURYSTOMUS ORIENTALIS (L.).
Eurystomus orientalis, Salvad. *t. c.* p. 105.
Lumbidan (*coll. Ussher, Treacher*); Láwas river (*coll. Treacher*).
Mr. Treacher gives the native name as "Lallie."

BATRACHOSTOMUS STELLATUS, Gould.
Batrachostomus stellatus, Salvad. *t. c.* p. 112; Tweedd. P. Z. S. 1877, p. 436.
Láwas river (*coll. Treacher*).

BATRACHOSTOMUS AURITUS (Vig.).
Batrachostomus auritus, Tweedd. P. Z. S. 1877, p. 439.
Láwas river (*coll. Treacher*).
Two specimens. There can be no doubt that the bird sent

by Mr. Low, and recorded by me (P. Z. S. 1875, p. 99) as from Labuan, was really from the mainland of Borneo.

CAPRIMULGUS MACRURUS, Horsf.
Caprimulgus macrurus, Salvad. *t. c.* p. 117.
Lumbidan (*coll. Treacher*).
Native name " Kampak kampak."

CAPRIMULGUS CONCRETUS, Bp.
Caprimulgus concretus, Salvad. *t. c.* p. 118.
Lumbidan (*coll. Ussher*); Brunei (*coll. Ussher*).

COLLOCALIA LINCHI, Horsf. & Moore.
Collocalia linchi, Salvad. *t. c.* p. 121.
Láwas river (*coll. Ussher*).

DENDROCHELIDON LONGIPENNIS (Rafin.).
Dendrochelidon longipennis, Salvad. *t. c.* p. 122.
Lumbidan (*coll. Treacher*).

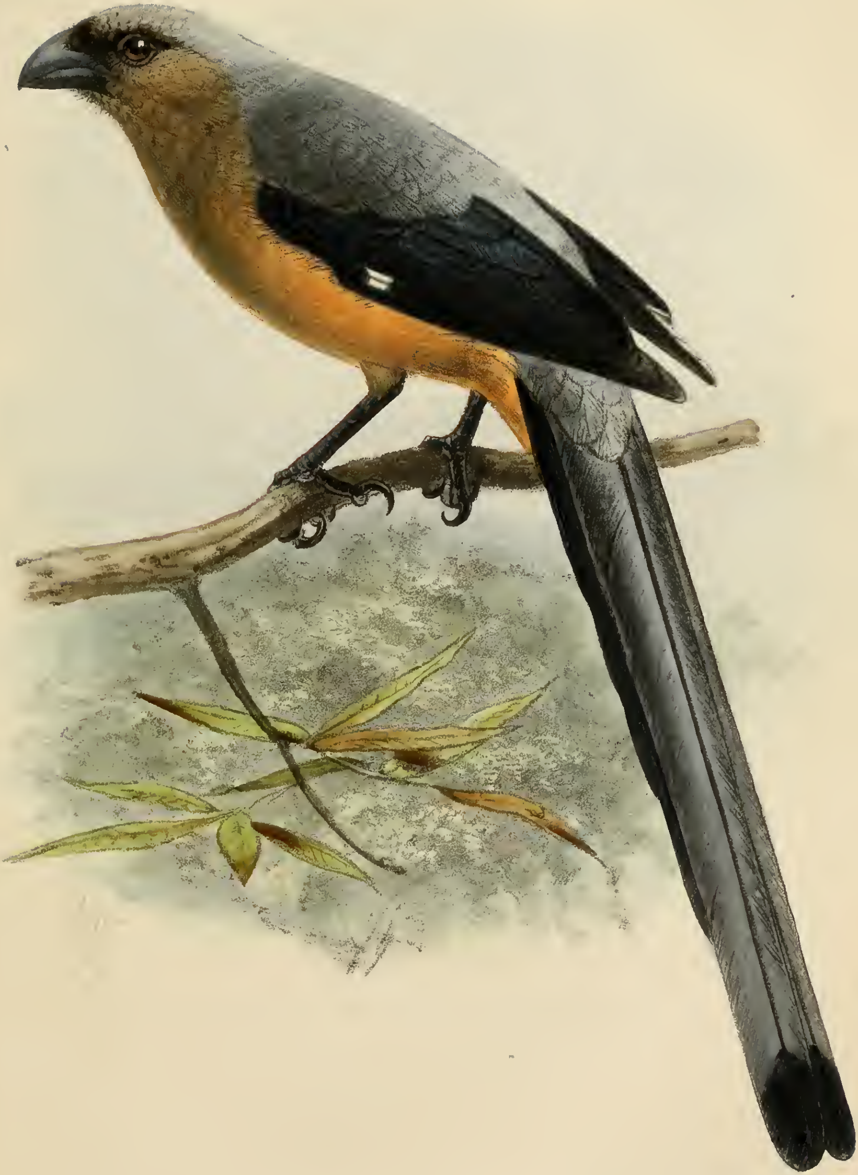
DENDROCHELIDON COMATA (Temm.).
Dendrochelidon comata, Salvad. *t. c.* p. 123.
Lumbidan (*coll. Treacher*); Láwas river (*coll. Treacher*).

CORONE TENUIROSTRIS, Moore.
Corone tenuirostris, Sharpe, P. Z. S. 1879, p. 246.
Lumbidan (*coll. Low*); Brunei (*coll. Ussher*).

DENDROCITTA CINERASCENS, sp. n. (Plate VIII.)

D. affinis *D. occipitali* ex Sumatrâ, sed dorso cinerascente, pileo cinereo et plagâ occipitali albâ nullâ, facilè distinguenda. Long. tot. 15·5, culm. 1·15, alæ 5·3, caudæ 10·0, tarsi 1·1.

General colour above ashy grey, the hind neck and mantle, as well as the scapulars, rather darker; the lower rump and upper tail-coverts purer grey, the latter with pale rusty edgings to the tips of the feathers; the feathers of the head also with an apical spot of pale rusty buff; wings black, some of the coverts tipped with fulvous; a large white speculum formed by the white bases to the primaries; two centre tail-feathers dark pearly grey, with black ends, the next one on each side black, grey along the inner web and towards the base of the outer, rest of the tail-feathers black; lores brown;



J.G.Keulemans lith. Hanhart imp.

DENDROCITTA CINERASCENS

AMERICAN MUSEUM
CENTRAL PARK,
NEW YORK.
OF NATURAL HISTORY.

the base of the forehead somewhat blackish; sides of face, throat, and chest brown; the ear-coverts with paler shaft-streaks; remainder of under surface of body orange-brown, including the under tail-coverts; under wing-coverts black, as also the lower surface of the quills, which have a broad white bar across them at a little distance from the base.

This new species belongs to the section of the genus *Dendrocitta* containing *D. occipitalis* and *D. bayleyi*, and comes nearer to the former than to the latter. It would take its place in the "key to the species" given by me in the 'Catalogue of Birds' (vol. iii. p. 76) in the following manner:—

d'. under tail-coverts orange, like the abdomen.
  c''. two centre tail-feathers grey, with black ends.
    c'''. head and back brown, with a large patch of white on the occiput and nape *occipitalis*.
    d'''. head and back ashy grey, with no patch on the nape and occiput ...... *cinerascens*.
  d''. two centre tail-feathers black; head black, the neck uniform .... *bayleyi*.

PLATYSMURUS ATERRIMUS (Temm.).
Platysmurus aterrimus, Salvad. *t. c.* p. 279.
Láwas river (*coll. Treacher*); Brunei (*coll. Ussher*).

ORIOLUS XANTHONOTUS, Horsf.
Oriolus xanthonotus, Salvad. *t. c.* p. 277.
Lumbidan (*coll. Treacher*).

DICRURUS ANNECTENS (Hodgs.).
Dicrurus annectens, Sharpe, Cat. B. iii. p. 231.
Lumbidan (*coll. Ussher*); Brunei (*coll. Ussher*).

DISSEMURUS BRACHYPHORUS (Temm.).
Dissemurus brachyphorus, Salvad. *t. c.* p. 154.
Lumbidan (*coll. Ussher, Treacher*).
Native name "Blackie."

CHIBIA BORNEENSIS, Sharpe.
Chibia borneensis, Sharpe, P. Z. S. 1879, p. 246.
Láwas river (*coll. Treacher*).

TEPHRODORNIS GULARIS (Raffl.).

Tephrodornis gularis, Salvad. *t. c.* p. 156; Sharpe, Cat. B. iii. p. 278.

Sent by Mr. Low from Lumbidan. Native name "Alap alap." The eggs are also forwarded by Mr. Low, who says that three in a nest is the usual number. They are creamy buff, with large blotches of rufous brown, and underlying spots of purplish grey. Most of the eggs show a tendency to have the spots collected in a zone at the larger end; but some of them have the spots distributed over the whole egg. Axis 0·95–1·0 in., diam. 0·7–0·75 in.

HEMIPUS OBSCURUS (Horsf.).

Hemipus obscurus, Sharpe, Cat. B. iii. p. 305.

Myiolestes obscurus, Salvad. *t. c.* p. 156,

Lumbidan (*coll. Ussher, Treacher*).

ARTAMIDES SUMATRENSIS (S. Müll.).

Artamides sumatrensis, Sharpe, Cat. B. iv. p. 12.

Graucalus sumatrensis, S. Müll.; Salvad. *t. c.* p. 150.

Lumbidan (*coll. Ussher, Treacher*).

Mr. Treacher sends an adult male and female and a young bird. The latter is in the usual mottled plumage of a young Cuckoo-Shrike, with greyish white tips to all the feathers of the upper surface, the lower parts barred with dusky grey, except on the belly, which is white; wing-coverts mottled with broad buff edges, before which is a dusky subterminal bar, the quills broadly edged with buff or white, the tail-feathers with white tips, much more conspicuous on the outer ones.

PERICROCOTUS IGNEUS, Blyth.

Pericrocotus igneus, Salvad. *t. c.* p. 144; Sharpe, Cat. B. iv. p. 78.

Lumbidan (*coll. Ussher, Treacher*).

Mr. Treacher sends a pair of these birds without any native name. Mr. Low's last collection also contained a large series of specimens.

PERICROCOTUS CINEREUS, Lafr.

Pericrocotus cinereus, Sharpe, Cat. B. iv. p. 83.

Two female specimens were in Mr. Low's Lumbidan collection. The species was first added to the Bornean avifauna by Mr. Alfred Everett, who procured a specimen at Bintulu (*cf.* Ibis, 1877, p. 19). Governor Ussher has since met with it in Labuan.

LALAGE CULMINATA (A. Hay).

Lalage culminata, Sharpe, Cat. B. iv. p. 104.

Volvocivora schierbrandii, Pelz.; Salvad. *t.c.* p. 148.

Lumbidan (*coll. Ussher, Treacher*).

POLIOMYIAS LUTEOLA (Pall.).

Poliomyias luteola, Sharpe, Cat. B. iv. p. 201.

Erythrosterna erythraca, Salvad. *t. c.* p. 127 (nec Blyth).

A fine series was contained in Mr. Low's last consignment, as recorded in the 'Catalogue of Birds.' Mr. Treacher has sent one adult male from Labuan.

XANTHOPYGIA CYANOMELÆNA (Temm.).

Xanthopygia cyanomelæna, Sharpe, Cat. B. iv. p. 251.

Lumbidan (*coll. Ussher, Treacher*).

Mr. Low sent three specimens from the mainland in his last collection; and Governor Ussher has found it in Labuan.

HYPOTHYMIS OCCIPITALIS (Vig.).

Hypothymis occipitalis, Sharpe, Cat. B. iv. p. 275.

Hypothymis azurea (Bodd.); Salvad. *t.c.* p. 133.

Lumbidan (*Coll. Treacher*).

No native name.

RHIPIDURA PERLATA, S. Müll.

Rhipidura perlata, Sharpe, Cat. B. iv. p. 328.

Leucocerca perlata, Salvad. *t. c.* p. 136.

Sent from the mainland of N.W. Borneo by Mr. Low.

TERPSIPHONE AFFINIS, Blyth.

Terpsiphone affinis, Salvad. *t.c.* p. 137; Sharpe, Cat. B. iv. p. 349.

Lumbidan (*coll. Low, Ussher*); Láwas river (*coll. Treacher*).

PHILENTOMA PYRRHOPTERA (Temm.).

Philentoma pyrrhopterum, Salvad. *t. c.* p. 138; Sharpe, Cat. B. iv. p. 366.

Lumbidan (*coll. Ussher, Treacher*).

Native name "Parrack," according to Mr. Treacher.

RHINOMYIAS PECTORALIS (Salvad.).

Rhinomyias pectoralis, Sharpe, Cat. B. iv. p. 368.

Setaria pectoralis, Salvad. *t. c.* p. 233, pl. iv. fig. 1.

Three specimens sent from the mainland of N.W. Borneo by Mr. Low. Mr. Treacher sends a pair from Lumbidan with the native name "Panggil Huyan."

SIPHIA ELEGANS (Temm.).

Siphia elegans, Sharpe, Cat. B. iv. p. 447.

Cyornis elegans, Salvad, *t. c.* p. 130.

Lumbidan (*coll. Treacher*).

Native name "Parrack buru."

One adult male sent by Mr. Treacher.

SIPHIA BANYUMAS (Horsf.).

Siphia banyumas, Sharpe, Cat. B. iv. p. 449.

Cyornis banyumas, Salvad. *t. c.* p. 130.

Lumbidan (*coll. Ussher*); Brunei (*coll. Ussher*).

SIPHIA TURCOSA (Brüggem.).

Siphia turcosa, Sharpe, Cat. B. iv. p. 453.

Lumbidan (*coll. Ussher*).

Two specimens also in Mr. Low's Lumbidan collection.

TURDUS PALLENS, Pall.

Turdus pallens, Salvad. *t. c.* p. 256.

Láwas river (*coll. Treacher*); Moara Island (*coll. Ussher*).

PHYLLOSCOPUS BOREALIS (Blasius).

Phylloscopus borealis, Seebohm, Ibis, 1877, p. 69.

Phyllopneuste javanica, Bp.; Salvad. *t. c.* p. 244.

Lumbidan (*coll. Ussher*).

PHYLLOSCOPUS XANTHODRYAS (Swinh.).

Phylloscopus xanthodryas, Seebohm, Ibis, 1877, p. 71.

A single specimen occurred in one of Mr. Low's early collections, and passed into Mr. Seebohm's hands, as recorded by him (*l. c.*).

ACROCEPHALUS ORIENTALIS (T. & S.).

Acrocephalus orientalis, Salvad. *t. c.* p. 251.

Lumbidan (*coll. Ussher*); Láwas river (*coll. Treacher*); Moara Island (*coll. Ussher*).

LOCUSTELLA CERTHIOLA (Pall.).

Locustella certhiola, Seebohm, Ibis, 1879, p. 13.

Lumbidan (*coll. Ussher*).

Two specimens. Already recorded from Sarawak by Count Salvadori (*t. c.* p. 250) under the name of *Calamodyta doriæ*, by which name it was also figured by me in 'The Ibis' for 1876 (pl. ii. fig. 2).

HENICURUS RUFIDORSALIS, sp. n.

H. similis *H. ruficapillo*, sed dorso rufescente et gulâ albâ nec nigrâ distinguendus. Long. tota 7·2, culminis 0·95, alæ 3·5, caudæ 3·0, tarsi 1·15.

Láwas river (*coll. Treacher*).

This appears to me to be a distinct species, differing from *H. ruficapillus* in its rufous back and white throat. Both it and the specimen of *H. ruficapillus* from Poak Hill (*cf.* Sharpe, Ibis, 1876, p. 42) seem to me to be quite adult.

HENICURUS FRONTALIS, Blyth.

Henicurus frontalis, Elwes, Ibis, 1872, p. 259, pl. ix.; Salvad. *t. c.* p. 258.

Láwas river (*coll. Treacher*).

This species was found by Doria and Beccari near Sarawak, and was the only one known to Count Salvadori as occurring in the island. Two others have since been added by the English collectors.

CITTOCINCLA SUAVIS (Sclater).

Cittocincla suavis, Salvad. *t. c.* p. 252.

Lumbidan (*coll. Ussher*).

CITTOCINCLA STRICKLANDI (Motl. & Dillw.).

Kittocincla stricklandi, Salvad. *t. c.* p. 253.

An old bird and an immature one from Lumbidan sent by Mr. Treacher.

Native name "Pulita Sungie."

IORA VIRIDISSIMA, Bp.
Iora viridissima, Salvad. *t. c.* p. 192.
Lumbidan (*coll. Treacher*).
Native name "Parak-markpakutan."

PHYLLORNIS SONNERATI (J. & S.).
Phyllornis sonneratii, Salvad. *t. c.* p. 193.
Lumbidan (*coll. Ussher, Treacher*) ; Brunei (*coll. Ussher*).
Native name "Parak jow" (*Treacher*).

PHYLLORNIS CYANOPOGON, Temm.
Phyllornis cyanopogon, Salvad. *t. c.* p. 194.
Lumbidan (*coll. Treacher*).

TRACHYCOMUS OCHROCEPHALUS (Gm.).
Trachycomus ochrocephalus, Salvad. *t. c.* p. 196.
Láwas river (*coll. Treacher*).

PYCNONOTUS ANALIS (Horsf.).
Pycnonotus analis, Salvad. *t. c.* p. 197.
Láwas river (*coll. Treacher*).

IXIDIA PAROTICALIS, Sharpe.
Ixidia paroticalis, Sharpe, Ibis, 1878, p. 418.
Láwas river (*coll. Treacher*).

HYPSIPETES MALACCENSIS, Blyth.
Hypsipetes malaccensis, Salvad. *t. c.* p. 203.

Mr. Low says that this species lays two eggs. In colour these are very variable, the ground-colour being pinky white, blotched and spotted with maroon or chestnut, the spots being small in some, large and smudgy in others: axis 0·85 in., diam. 0·6–0·65.

TRICHOPHOROPSIS TYPUS, Bp.
Trichophoropsis typus, Salvad. *t. c.* p. 203.
Lumbidan (*coll. Ussher, Treacher*) ; Láwas river (*coll. Treacher*).

Native name "Parrack rimba" (*Treacher*).

TRICHOLESTES MINUTUS (Hartl.).
Tricholestes minutus, Salvad. *t. c.* p. 205, tav. v. fig. 1.
Lumbidan (*coll. Ussher, Treacher*).
Native name "Parrack kuning."

CRINIGER PHÆOCEPHALUS, Hartl.
Criniger phæocephalus, Salvad. *t. c.* p. 207.
Láwas river (*coll. Treacher*).

IRENA CRINIGER, Sharpe.
Irena criniger, Sharpe, Cat. B. iii. p. 267.
Irenea cyanea (Begbie); Salvad. *t. c.* p. 151.
Lumbidan (*coll. Ussher, Treacher*).

Mr. Treacher's series confirms the correctness of my characters for the specific separation of the species. Native name "Lalu."

HERPORNIS BRUNNESCENS, Sharpe.
Herpornis brunnescens, Sharpe, Ibis, 1876, p. 41.
Lumbidan (*coll. Treacher*).

Native name "Suit malagundie," being the same as that employed for the *Phylloscopi* in Labuan.

TIMELIA MACULATA, Temm.
Timelia maculata, Salvad. *t. c.* p. 211.
Lumbidan (*coll. Treacher*).
Native name "Kŭng kŭt."

TIMELIA NIGRICOLLIS, Temm.
Timelia nigricollis, Salvad. *t. c.* p. 212.

Brunei (*coll. Ussher*); Lumbidan (*coll. Ussher*); Láwas river (*coll. Treacher*).

CYANODERMA BICOLOR (Blyth).
Cyanoderma bicolor, Sharpe, Ibis, 1876, p. 40.
Cyanoderma erythropterum (Blyth); Salvad. *t. c.* p. 213.
Láwas river (*coll. Treacher*).

MIXORNIS BORNEENSIS, Bp.
Mixornis borneensis, Salvad. *t. c.* p. 215.
Brunei (*coll. Ussher*); Lumbidan (*coll. Ussher*).

MACRONUS PTILOSUS (J. & S.).
Macronus ptilosus, Salvad. *t. c.* p. 216.
Brunei (*coll. Ussher*); Lumbidan (*coll. Ussher, Treacher*); Láwas river (*coll. Treacher*).

Native name given by Mr. Treacher as "Kŭng kŭt laudak."

DRYMOCATAPHUS CAPISTRATOIDES (Temm.).
Drymocataphus capistratoides, Salvad. *t. c.* p. 218.
Lumbidan (*coll. Ussher, Treacher*); Láwas river (*coll. Treacher*).

The native name in Lumbidan is given as "Kŭng kŭt mondoie."

BRACHYPTERYX UMBRATILIS (Temm.).
Brachypteryx umbratilis, Salvad. *t. c.* p. 220.
Lumbidan (*coll. Ussher*).

BRACHYPTERYX MALACCENSIS, Hartl.
Brachypteryx malaccensis, Salvad. *t. c.* p. 222.
Lumbidan (*coll. Ussher, Treacher*); Brunei (*coll. Ussher*).
Native name "Kŭng kŭt."

KEROPIA STRIATA (Blyth).
Keropia striata, Salvad. *t. c.* p. 223, pl. v. fig. 2.
In Mr. Low's collection.

MALACOPTERON MAGNUM, Eyton.
Malacopteron magnum, Salvad. *t. c.* p. 226.
Lumbidan (*coll. Ussher, Treacher*).
Native name "Parak umbun" (*Treacher*).

MALACOPTERON FERRUGINEUM, Blyth.
Malacopteron ferrugineum, Salvad. *t. c.* p. 228.
Lumbidan (*coll. Ussher*).

SETARIA AFFINIS (Blyth).
Setaria affinis, Salvad. *t. c.* p. 231.
Lumbidan (*coll. Ussher*); Brunei (*coll. Ussher*).

SETARIA ALBIGULARIS, Blyth.
Setaria albigularis, Salvad. *t. c.* p. 232.
In Mr. Low's Lumbidan collection.

ORTHOTOMUS ATRIGULARIS, Temm.

Orthotomus atrigularis, Salvad. *t. c.* p. 249; Sharpe, Ibis, 1877, pp. 16, 113.

A species described by Temminck from Borneo, but unnoticed in the island till 1876, when Mr. Everett procured it at Bintulu. Governor Ussher has now traced its extended range in Borneo by meeting with it more to the northward.

ORTHOTOMUS RUFICEPS, Less.

Orthotomus ruficeps, Salvad. *t. c.* p. 248; Sharpe, Ibis, 1877, p. 114.

In Mr. Low's Lumbidan collection.

ORTHOTOMUS CINERACEUS, Blyth.

Orthotomus cineraceus, Sharpe, Ibis, 1877, p. 114; Salvad. *t. c.* p. 248.

Orthotomus borneonensis, Salvad. *t. c.* p. 247.

Lumbidan (*coll. Treacher*).

Native name "Cheak bodok."

PRINIA SUPERCILIARIS, Salvad.

Prinia superciliaris, Salvad. *t. c.* p. 249.

Lumbidan (*coll. Treacher*).

Native name "Anchayak."

LANIUS LUCIONENSIS, L.

Lanius lucionensis, Sharpe, Ibis, 1866, p. 43.

Lanius schwanerii, Bp.; Salvad. *t. c.* p. 159.

Brunei (*coll. Ussher*); Lumbidan (*coll. Ussher, Treacher*).

An adult bird sent by Mr. Treacher has the native name "Rangas."

HYLOTERPE GRISOLA (Blyth).

Hyloterpe grisola, Salvad. *t. c.* p. 157.

Lumbidan (*coll. Ussher*).

DENDROPHILA FRONTALIS (Horsf.).

Dendrophila frontalis, Salvad. *t. c.* p. 161.

Brunei river (*coll. Ussher*); Lumbidan (*coll. Treacher*).

CINNYRIS PECTORALIS (Horsf.).

Cinnyris pectoralis, Shelley, Monogr. Cinnyridæ, pt. vi.

Cyrtostomus pectoralis, Salvad. *t. c.* p. 170.
Lumbidan (*coll. Ussher, Treacher*).
Native name, as in Labuan, "Suit kuchick" (*Treacher*).

CINNYRIS HASSELTI (Temm.).
Cinnyris hasseltii, Shelley, Monogr. Cinnyr. pt. iv.
Nectarophila hasseltii (Temm.); Salvad. *t. c.* p. 177.
Láwas river (*coll. Treacher*).

CHALCOSTETHA INSIGNIS (Jard.).
Chalcostetha insignis, Salvad. *t. c.* p. 177; Shelley, Monogr. Cinnyr. pt. iv.
Lumbidan (*coll. Ussher*).

ÆTHOPYGA SIPARAJA (Raffl.).
Æthopyga siparaja, Shelley, Monogr. Cinnyr. pt. ix.
Æthopyga eupogon, Cab.; Salvad. *t. c.* p. 173.
Lumbidan (*coll. Ussher, Treacher*).
Native name "Suit merah."

ANTHREPTES HYPOGRAMMICA (Müll.).
Anthreptes hypogrammica, Shelley, Monogr. Cinnyr. pt. iii.
Hypogramma nuchalis, Salvad. *t. c.* p. 172.
Lumbidan (*coll. Treacher*).
Native name "Suit."

ANTHREPTES SIMPLEX (S. Müll.).
Anthreptes simplex, Shelley, Monogr. Cinnyr. pt. iv.
Arachnophila simplex, Salvad. *t. c.* p. 172.
Lumbidan (*coll. Treacher*).
Native name "Suit."

ANTHREPTES PHŒNICOTIS (Temm.).
Anthreptes phœnicotis, Shelley, Monogr. Cinnyr. pt. vii.
Chalcoparia singalensis (Gm.); Salvad. *t. c.* p. 180.
Lumbidan (*coll. Ussher, Treacher*).
Native name "Suit toonjang" (*Treacher*).

ANTHREPTES RHODOLÆMA, Shelley.
Anthreptes rhodolæma, Shelley, Monogr. Cinnyr. pt. vi.
Láwas river (*coll. Treacher*).

An adult male, fully confirming the correctness of Captain Shelley's identification. The species is new to Borneo.

ARACHNORHAPHIS CRASSIROSTRIS (Reichenb.).

Arachnorhaphis crassirostris, Shelley, Monogr. Cinnyr. pt. ix.

Arachnothera crassirostris, Reichenb.; Salvad. *t. c.* p. 187.

Láwas river (*coll. Treacher*).

ARACHNOTHERA LONGIROSTRA (Lath.).

Arachnothera longirostra, Salvad. *t. c.* p. 186; Shelley, Monogr. Cinnyr. pt. vi.

Láwas river (*coll. Treacher*); Lumbidan (*coll. Treacher*).

Native name "Suit susat."

Frequent also in Mr. Low's and Governor's Ussher's collections.

ARACHNOTHERA CHRYSOGENYS, Temm.

Arachnothera chrysogenys, Salvad. *t. c.* p. 181; Shelley, Monogr. Cinnyr. pt. ix.

Láwas river (*coll. Treacher*).

PRIONOCHILUS THORACICUS (Temm.).

Prionochilus thoracicus, Salvad. *t. c.* p. 163.

Mr. Low sent a large series of this pretty bird from N.W. Borneo. Mr. Treacher's collection contained an adult male from the Láwas river.

PRIONOCHILUS XANTHOPYGIUS, Salvad.

Prionochilus xanthopygius, Salvad. *t. c.* p. 162.

Brunei (*coll. Ussher*); Lumbidan (*coll. Treacher*).

Mr. Treacher sends an adult male, with the native name "Suit benaroi." In Mr. Low's collection was a male, which on comparison seems to be smaller than one of Mr. Everett's Bintulu specimens, with which I compared it, as will be seen from the following measurements:—

	Total length.	Culm.	Wing.	Tail.	Tarsus.
a. ♂. Bintulu....	3·4	0·4	2·1	1·15	0·55
b. ♂. Lumbidan..	3·1	0·35	1·95	1·05	0·55

DICÆUM TRIGONOSTIGMA (Scop.).

Dicæum trigonostigma, Salvad. *t. c.* p. 166.

Lumbidan (*coll. Treacher*). Native name "Suit benaroi." A male.

Láwas river (*coll. Treacher*). A female.

ANTHUS GUSTAVI, Swinhoe.
Anthus gustavi, Seebohm, Ibis, 1877, p. 129.
Lumbidan (*coll. Treacher*).

Native name "Bras bras," this being the same as the Labuan name for the Grey-headed Wagtail (*Budytes viridis*).

BUDYTES VIRIDIS (Gm).
Budytes viridis, Salvad. *t. c.* p. 260.
Lumbidan (*coll. Ussher*).

ERYTHRURA PRASINA (Sparrm.).
Erythrura prasina, Salvad. *t. c.* p. 269.
Láwas river (*coll. Treacher*).

STURNIA DAURICA (Pall.).
Sturnia daurica, Salvad. *t. c.* p. 271.
Brunei (*coll. Treacher*).

Two specimens. This species is now authentically recorded from Borneo for the first time, as when Count Salvadori wrote his work he included it as one of the species likely to be met with in the island—a prediction, like so many others of that author's, here fulfilled.

GRACULA JAVANENSIS (Osb.).
Gracula javanensis, Salvad. *t. c.* p. 274.
Lumbidan (*coll. Treacher*).
Native name "Tiong."

CALORNIS CHALYBEA (Horsf.).
Calornis chalybea, Salvad. *t. c.* p. 271.
Lumbidan (*coll. Treacher*).

The native name is given by Mr. Treacher as "Langkiak," whereas in Labuan it is said to be "Langkir."

PITTA CYANOPTERA, Temm.
Pitta cyanoptera, Salvad. *t. c.* p. 235.
Lawas river (*coll. Treacher*). Also sent by Mr. Low from Lumbidan.

Pitta oreas, Swinhoe.

Pitta oreas, Swinhoe, Ibis, 1864, p. 428; et P. Z. S. 1871, p. 375.

Pitta bertæ, Salvad. *t. c.* p. 237, pl. iii.

A comparison of a specimen sent by Mr. Low from Lumbidan with the type of *P. oreas* of Swinhoe shows that they cannot be specifically distinguished. The Bornean bird has been named by Count Salvadori *Pitta bertæ,* which now becomes a synonom of *P. oreas.*

Pitta muelleri (Bp.).

Pitta muelleri, Salvad. *t. c.* p. 240.

Lumbidan (*coll. Ussher, Treacher*); Láwas river (*Treacher*).

Native name "Teong tanah" (*Treacher*).

Pitta ussheri, Sharpe.

Pitta ussheri, Sharpe, P. Z. S. 1877, p. 94.

Láwas river (*coll. Ussher, Treacher*).

A single adult specimen from the Lawas river is sent by Mr. Treacher, fully bearing out the specific distinctness of this species from *P. venusta.*

Pitta schwaneri, Temm.

Pitta schwaneri, Salvad. *t. c.* p. 243.

Sent by Mr. Low from the mainland of N.W. Borneo, and by Governor Ussher and Mr. Treacher from the Láwas river.

Pitta arcuata, Gould.

Pitta arcuata, Salvad. *t. c.* p. 241.

Láwas river (*coll. Treacher*).

Calyptomena viridis, Raffl.

Calyptomena viridis, Salvad. *t. c.* p. 106.

Láwas river (*coll. Treacher*).

Eurylæmus javanicus, Horsf.

Eurylæmus javanicus, Salvad. *t. c.* p. 107.

Lumbidan (*coll. Ussher*); Láwas river (*coll. Treacher*).

Eurylæmus ochromelas, Raffl.

Eurylæmus ochromelas, Salvad. *t. c.* p. 108.

Lumbidan (*coll. Treacher*).

Native name "Tapaw."

Cymborhynchus macrorhynchus (Gm.).

Cymborhynchus macrorhynchus, Salvad. *t. c.* p. 109; Sharpe, Ibis, 1876, p. 49.

Brunei (*coll. Ussher*); Moara Island (*coll. Ussher*); Lumbidan (*coll. Ussher, Treacher*); Láwas river (*coll. Treacher*).

The series sent by Mr. Treacher effectually disposes of the idea that the Bornean bird can be specifically separated from the Malaccan. I have already shown (*l. c.*) that great variation in the number of white bars on the outer tail-feathers exists in Malaccan birds. *C. malaccensis,* Salvad., is supposed to differ from the Bornean *Cymborhynchus* in having three outer tail-feathers marked with white, whereas in the latter birds no trace of a white mark generally exists. In Mr. Treacher's series the markings are as follows:—

a. Láwas river. Three outer tail-feathers very largely marked with white.
b. Láwas river. Two outer tail-feathers marked, the penultimate one faintly, the outermost very distinctly.
c, d. Láwas river. No white marks at all on the tail-feathers.
e. Lumbidan. Only a faint spot on the outer feather.
f. Lumbidan. No white mark at all on the tail-feathers.

The native name is given by Mr. Treacher as "Kaug-kaug."

Mr. Low writes:—"From the Bunang river, May 1876. This species is found about the mouths of most rivers and near sandy beaches; the nest overhangs the water. In this nest was found the egg of some strange bird, in addition to the eggs properly belonging to it." The nest is a long purse-like structure, the general material appearing to be dried flags or grass, with an outside covering of fibre intermixed with grass and a few leaves: its length is about 13·5 inches, and its diameter about 5·5. The eggs are rich cream-colour, mottled all over with dots and smudgy spots of reddish; axis 1·2 inch, diam. 0·8. The strange egg alluded to by Mr. Low measures as follows—axis 1·2 inch, diam. 0·8,—and is pale bluish white. It may be a variety of the ordinary egg, or perhaps that of some parasitic Cuckoo.

CORYDON SUMATRANUS (Raffl.).
Corydon sumatranus, Salvad. *t. c.* p. 111.
Láwas river (*Treacher*).

The dorsal spot is red, as in the Sibu example of Mr. Everett's mentioned by me (Ibis, 1876, p. 48).

TRERON CAPELLII (Temm.).
Treron capellii, Salvad. *t. c.* p. 285.
Láwas river (*coll. Treacher*); Lumbidan (*coll. Ussher*).

TRERON FULVICOLLIS (Wagl.).
Treron fulvicollis, Salvad. *t. c.* p. 288.
Lumbidan (*coll. Treacher*).
Native name "Punie lungkukok."

TRERON OLAX (Temm.).
Treron olax, Salvad. *t. c.* p. 289.
Lumbidan (*coll. Treacher*).
Native name "Punie siol" (*Treacher*).

GEOPELIA STRIATA (L.).
Geopelia striata, Salvad. *t. c.* p. 298.
Lâwas river (*coll. Treacher*); Moara Island (*coll. Ussher*).

CALŒNAS NICOBARICA (L.); Sharpe, P. Z. S. 1879, p. 358.
Brunei (*coll. Ussher*).

MACROPYGIA TENUIROSTRIS, Gray.
Macropygia tenuirostris, Walden, Tr. Z. S. ix. p. 218.
Brunei (*coll. Treacher*).

The single adult specimen sent by Mr. Treacher has been compared by me with others from the Philippines and from Java; and I cannot see sufficient difference between it and birds from the above-named localities. The late Lord Tweeddale (*l. c.*), however, stated his belief that the Javan bird should be distinguished as *M. emiliana,* Bp.; and the Bornean bird belongs to the Javan species, if they can be separated. This is the first authentic occurrence of a *Macropygia* in Borneo, though Count Salvadori thinks that *M. ruficeps* (Temm.) is a likely bird to occur there.

HÆMATORTYX, gen. n.

Genus affine generi *Rollulo*, sed hallucis ungue majore, pilei cristâ minore et aliter formatâ, cristâ nuchali obsoletâ, frontisque crinibus absentibus distinguendum. Typus est

HÆMATORTYX SANGUINICEPS, sp. n.

Suprà sepiaria, alis dorso concoloribus; caudâ paullò saturatiore, nigricante; pileo vix cristato et nuchâ sordidè coccineis, plumis medialiter pallidiùs lineatis, fronte paullò pallidiore; capitis lateribus pallidè coccineis; gutture cervino vix coccineo lavato, plumis etiam pallidè fulvo striatis; jugulo et præpectore castaneis; corpore reliquo subtùs sepiario, plumis obscurè pallidiore brunneo marginatis; subalaribus pectori concoloribus; subcaudalibus lætissimè coccineis. Long. tot. 12·5, culm. 0·85, alæ 5·85, caudæ 2·8, tarsi 1·85.

Adult. General colour above dark sepia-brown, the wings like the back; tail-feathers blackish; crown of head, which is slightly crested, deep crimson, the nape also of this colour, with blackish tips to the feathers, all the plumes of the crown with narrow buff shaft-lines; sides of face dull crimson, the ear-coverts, cheeks, and throat light fawn-colour, with a slight wash of crimson on the chin; lower throat, fore neck, and chest deep chestnut; remainder of under surface of body dark sepia-brown, with paler edges to most of the feathers; under wing-coverts like the breast; under tail-coverts black, the longer ones bright crimson.

This is a remarkable-looking bird, of which one specimen has been sent from the Láwas river by Mr. Treacher. It has no spur on the leg, and is probably a female bird, so that we are still left to conjecture what the male is like. The native name is "Serookan," the same as that applied to the *Rollulus*; but the difference in the structure of the crest-feathers, as well as the greater development of the hind claw, which is almost obsolete in *Rollulus*, forbid the possibility of its being placed in the same genus.

BAMBUSICOLA HYPERYTHRA, sp. n.

Suprà olivascenti-brunnea, nigro transfasciata, dorso postico et uropygio latiùs fasciatis; tectricibus alarum saturatè brunneis, latè olivascenti-brunneo terminatis, majoribus

sordidè rufo terminatis; primariis brunneis, extùs latè sordidè rufo vel rufescenti-brunneo marginatis, secundariis autem nigro terminatis et subterminaliter pallidè olivascenti-brunneo transfasciatis, intimis prope apices pallidè albicanti-brunneis; caudâ saturatè brunneâ; pileo summo nuchâque nigris fasciâ nigrâ per collum posticum angustatâ; loris, supercilio angustiore, et fasciâ latâ, per colli latera superiora ductâ, sordidè cineraceis; lineâ nigrâ angustâ supra- et infraoculari ad fasciam latam nigram per colli latera vera ductam conjunctâ; regione paroticâ et genis posticis sordidè cineraceis; genis anticis et corpore subtùs castaneo-rufis, hypochondriis magis aurantiacis, et plumis nigris pulchre maculâ ovali subterminali albâ ornatis; abdomine medio albicante; subalaribus cinerascenti-brunneis, axillaribus albido terminatis. Long. tot. 10·5, culm. 0·85, alæ 5·2, caudæ 2·2, tarsi 1·6.

So far as I can discover, this species is very distinct from any other game-bird known from the east. Its nearest known ally is apparently *B. sonorivox*, Gould, from Formosa, but it differs completely in its rufous under surface and other characters.

Megapodius cumingi, Dillw.
Megapodius cumingi, Salvad. *t. c.* p. 302.
Megapodius lowii, Sharpe, P. Z. S. 1875, p. 111.
Brunei (*coll. Treacher*).
Native name "Menambrum" (*Treacher*).

Argusianus grayi (Elliot).
Argusianus grayi, Salvad. *t. c.* p. 305.
Lawas river (*coll. Ussher, Treacher*).

Two eggs from the Mengálong river were sent by Mr. Low. They are creamy or yellowish white in colour, with minute grain-like dots all over the eggs; diam. 1·85 inch, axis 2·6.

Lobiophasis bulweri, Sharpe.
Lobiophasis bulweri, Sharpe, Ann. Nat. Hist. 1874, xiv. p. 73; Gould, B. Asia, pt. xxvii.
Lobiophasis castaneicaudatus, Sharpe, P. Z. S. 1877, p. 93.
Láwas river (*coll. Ussher, Treacher*).

When describing the second species of *Lobiophasis*, I was careful to hint that my *L. castaneicaudatus* might possibly be the young bird of *L. bulweri*. "I must confess that the smaller size of the wattles and the plumed head induced me to consider this new bird as being *L. bulweri* in an intermediate stage, perhaps in the second year" (*l. c.* p. 94). Since describing it, however, I have seen at least twenty specimens from the Láwas river, collected by Messrs. Ussher and Treacher, none of which suggested the possibility of my supposition being correct, all of them being typical *L. bulweri*. All doubt on the subject is now dispelled by the series recently sent to the Oxford Museum by Mr. Treacher, consisting of eight specimens.

No. 1 is a chick, nearly full-grown. The general plumage is rufous brown, variegated and mottled all over with the finest sandy-buff vermiculations, the wing-coverts ornamented with dark ochraceous subterminal spots of a triangular shape, the scapulars mottled with a broad subterminal bar of black, and having a distinct ochraceous buff shaft-line; quills blackish, vermiculated on the outer webs with rufous brown; the lower back, rump, and upper tail-coverts are darker than the rest of the back; tail, consisting of *twenty-eight* feathers, dark rufous brown, blackish on the inner webs, the feathers very much pointed at the tips, especially the outer ones, which are slightly sickle-shaped; under surface of body dusky grey, with dull ochraceous tips to the feathers; the fore neck and chest rufous brown; throat covered with dull whitish feathers; head and neck densely feathered with dusky brown plumes; the region of the eye, superciliary ridge, and sides of face bare, the ear-coverts hidden by a tuft of blackish plumes.

No. 2 seems to be a quite young male, emerging from the plumage of the female, which, to judge from Governor Ussher's specimens of the latter sex, appear to be of a lighter and more sandy brown than the young males. Not a trace of metallic plumage is seen in Mr. Treacher's bird, which has the head densely feathered; but the scapulars are more of a rufous brown, with even a slight shade of maroon, which is also apparent on the breast. This bird is in very similar plumage to the one figured by Mr. Gould as the hen of *Lobiophasis* *castaneicaudatus*; but it already shows the commencement of a spur on the leg.

No. 3 is a bird in dark rufous-brown plumage, a little darker than the "female" figured by Mr. Gould as *L. castaneicaudatus*, and which, I have little doubt now, is really the young male in his first dress. Mr. Treacher's bird, however, has a few of the blue metallic-tipped feathers of the adult appearing on the lower back and rump; the head is densely feathered, and the only bare part is the region in front of and round the eye; at the base of the lower mandible and on the sides of the crown the elongated wattles are represented by a little knob; and there is an incipient spur in the leg.

No. 4 is a somewhat similar bird in more advanced plumage. Dotted about all over the upper surface are many of the metallic-tipped feathers of the adult male plumage; and below the black plumes are also appearing in profusion, as is also the case with the maroon feathers of the neck. The head is still as densely clothed as in the foregoing example, the bare space on the sides of the head being about the same in extent, and the incipient wattles equally developed. True to the characters of the male *L. bulweri*, the upper tail-coverts are chestnut, like the tail; and in the shape of the latter there is an evident indication of the forked and diverging character which the latter assumes when adult.

No. 5 is almost in exactly the same plumage as the type of *L. castaneicaudatus*, described by me, but retains a few of the chestnut-brown plumes of the immature dress on the neck and wings. The left side of the tail, however, is particoloured, and from the midst of a group of chestnut feathers spring a number of the pure white perfect rectrices peculiar to *L. bulweri*. Here, then, we have the solution of the question of the two species inhabiting the Láwas river, and *L. castaneicaudatus* is, after all, that which I supposed it to be, the immature, or at least the second plumage of *L. bulweri*. The red tail evidently endures longer than the rest of the young plumage; and last of all is assumed the pure white tail. The full development of the wattles is an affair of even later date, as is also the bare head.

Nos. 6, 7, 8. Three fine adult males. It would seem from these and from other specimens sent by Governor Ussher and Mr. Treacher, that we were by no means acquainted with the full development of the facial wattles in the type specimen figured by Mr. Gould. Both the rictal pendent lobes and those behind the ear are much larger in very old birds; and there are, besides, two smaller and apparently erectile "horns" at the base of the nostrils.

EUPLOCAMUS IGNITUS (Lath.).

Euplocamus ignitus, Elliot, Ibis, 1878, p. 412.

Euplocamus nobilis, Sclater; Salvad. *t. c.* p. 306.

Lawas river (*coll. Treacher*); Mengálong river (*coll. Low*).

Two eggs sent by Mr. Low from the latter locality are uniform creamy buff in colour; axis 1·95–2·0 inches, diam. 1·55 inch.

ROLLULUS ROULOUL (Scop.).

Rollulus rouloul, Salvad. *t. c.* p. 308.

Láwas river (*coll. Treacher*); Lumbidan (*coll. Ussher, Treacher*).

Native name "Serookan" (*Treacher*).

The young birds sent by Mr. Treacher, besides having a mixture of grey plumes on the breast, have the legs and red colour of the bill much paler and more yellow, while the red crest on the head is not nearly so fine or so long. Mr. Low gives the same native name as Mr. Treacher, and forwards an egg obtained by his collector in Lumbidan. It is of a dull yellowish white colour; diam. 1·25 inch, axis 1·55 inch.

SQUATAROLA HELVETICA (L.).

Squatarola helvetica, Salvad. *t. c.* p. 313.

Moara Island (*coll. Ussher*).

CHARADRIUS FULVUS (Gm).

Charadrius fulvus, Salvad. *t. c.* p. 313.

Láwas river (*coll. Treacher*).

STREPSILAS INTERPRES (L.).

Strepsilas interpres, Salvad. *t. c.* p. 320.

Lumbidan (*coll. Treacher*).

Native name "Pimpeng."

ACTODROMAS ALBESCENS (Temm.).
Actodromas albescens, Salvad. *t. c.* p. 323.
Lumbidan (*coll. Ussher, Treacher*).

A single specimen in full winter plumage was in Mr. Treacher's collection.

TOTANUS GLAREOLA (L.).
Totanue glareola, Salvad. *t. c.* p. 327.
Lumbidan (*coll. Ussher*); Moara Island (*coll. Ussher*).

NUMENIUS AUSTRALIS, Gould.
Numenius australis, Salvad. *t. c.* p. 333.
Lumbidan (*coll. Ussher*).

RALLINA FASCIATA (Raffl.).
Rallina fasciata, Salvad. *t. c.* p. 337.
Láwas river (*coll. Treacher*).

GALLICREX CRISTATA (Lath.).
Gallicrex cristata, Salvad. *t. c.* p. 340.
Láwas river (*coll. Treacher*).

This species has not hitherto been authentically recorded from N.W. Borneo, but was collected by Motley at Banjermassing.

ERYTHRA PHŒNICURA (Penn.).
Erythra phœnicura, Salvad. *t. c.* p. 340.
Brunei (*coll. Ussher*).

ARDEA SUMATRANA, Raffl.
Ardea sumatrana, Salvad. *t. c.* p. 344.
Láwas river (*coll. Treacher*); Lumbidan (*coll. Ussher*).

ARDETTA EURHYTHMA, Swinhoe.
Ardetta eurhythma, Swinhoe, Ibis, 1873, pp. 73, 74.
Láwas river (*coll. Treacher*).

New to Borneo. I have compared the specimen sent by Mr. Treacher with Swinhoe's types, now in Mr. Seebohm's collection.

GORSACHIUS MELANOLOPHUS (Raffl.).
Gorsachius melanolophus, Salvad. *t. c.* p. 355.
Brunei (*coll. Treacher*); Láwas river (*coll. Treacher*).

This species was included by Count Salvadori as of likely occurrence in Borneo; but the present is the first authentic instance of the bird having been shot in the island.

Melanopelargus episcopus (Bodd.).
Melanopelargus episcopus, Salvad. *t. c.* p. 356.
Láwas river (*coll. Treacher*).

Leptoptilus javanicus (Horsf.).
Leptoptilus javanicus, Salvad. *t. c.* p. 358.

Mr. Low sends two eggs along with the head of the old female. The eggs are pale greenish blue; axis 2·7 inches, diam. 1·95 inch.

Sula piscatrix (L.).
Sula piscatrix, Salvad. *t. c.* p. 368.
Láwas river (*coll. Treacher*).

A young bird, with the wings clipped. The first specimen, however, which I saw from Borneo was a young bird given to the Museum by Governor Ussher from Sandăkan.

XXI.—*Notes on a Collection of Birds' Skins and Eggs made by Mr. D. Gill, F.R.A.S., on Ascension Island.* By F. G. Penrose.

My friend Mr. Gill went to Ascension for astronomical purposes during the months from July 1877 to January 1878, especially to observe the opposition of the planet Mars, which occurred on September 6, 1877. A detailed account of this expedition has been published in the 'Proceedings of the Astronomical Society' for last year; and a general account of their doings has been published in a delightful little book, entitled 'Six Months in Ascension,' by Mrs. Gill.

Before Mr. Gill started I asked him to bring me as complete a collection of the birds and eggs of the island as he might be able conveniently to procure; and as he did not know how to preserve skins, I recommended carbolic acid as a preservative. But it entirely failed, and the first skins that we obtained had to be thrown away, being entirely destroyed by "hardbacks" and other insects, which seemed positively to thrive on the meat dosed with carbolic acid. However, after the expedition to Boatswain-bird Island, Mr. Unwin, one of the residents on the island, an enthusiastic lover of natural history, kindly offered to skin any birds that might be brought him and to preserve them; and most beautifully has he done so.

The Island of Ascension is merely a large cinder-heap in the midst of the Atlantic, nearly a thousand miles from the nearest point of the mainland of Africa; its exact position is lat. 7° 55′ S., long. 14° 25′ W. The only vegetation exists as a cap to the highest point, which is significantly called "Green Mountain." The water-supply is very precarious, and is carefully looked after by the inhabitants for themselves and their domestic animals, which are donkeys, cattle, sheep, and a few fowls and pigeons. On the more inaccessible parts of the island a few goats, that have run wild, manage to pick up a scanty living; and there are numerous wild cats (*i. e.* cats that have run wild, and their descendants), which, for many months in the year, must live in clover, owing to the enormous supply of young birds spread before them. From the above it will be seen that any land-birds there have not a very favourable chance of multiplying; and Mr. Gill only once saw any Guinea-fowl. Still in past years these birds, which constitute the game of the island, were much more numerous, and the officers stationed there had fair sport for a short time. No reference will be made to the land-birds, which are known to have been transported there; besides the Guinea-fowl mentioned above, a fair number of a species of *Estrelda* live amongst the herbage of Green Mountain. Ascension, to the ornithologist, is an island of great interest, from the fact that any notices of stragglers found there may have considerable value as bearing on geographical distribution; and although its resident birds are fairly well known, yet I feel sure that there must be, at periods more or less widely distant, occasional wanderers, the appearance of which it would be of great importance to record. For instance, Mr. Howard Saunders informs me that Mr.

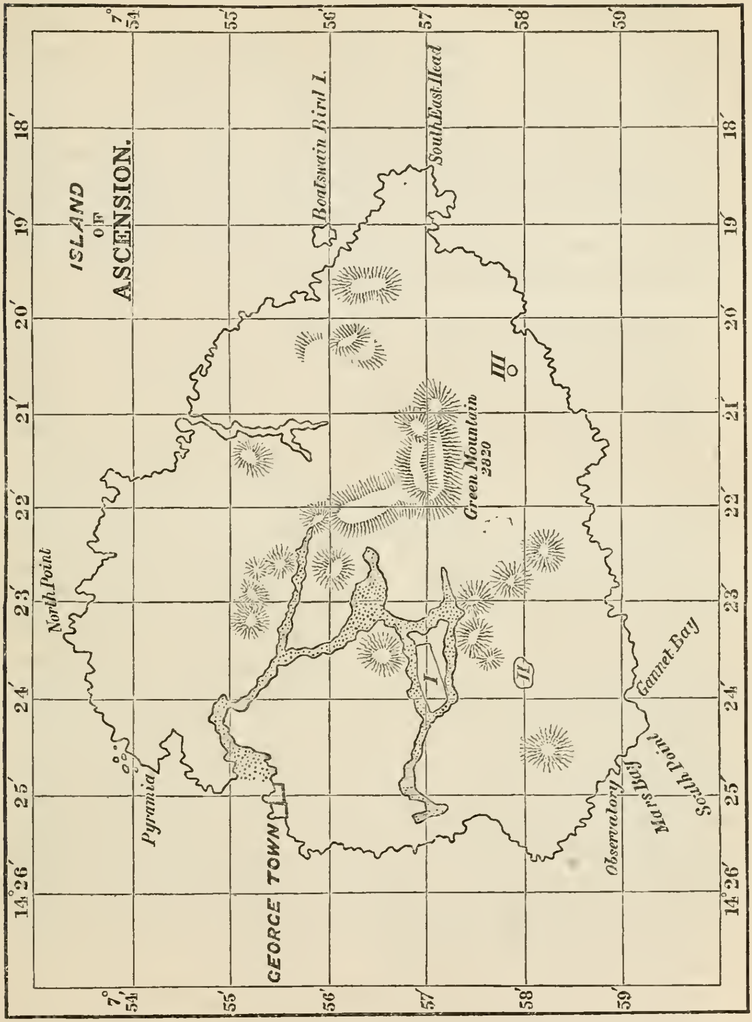
Unwin told him that, about September 1876, several Hawks, which he described as like small Kestrels, frequented the marines' barracks at Georgetown, and might be seen at all hours of the day swooping and dashing round the verandahs. Unfortunately no specimen was secured to determine the species; but the fact is nevertheless of interest, and shows how such outlying posts ought to be carefully watched, as no bird of prey is known on Ascension.

Although I can find no record of their presence, yet I think some of the smaller Skuas (*Stercorarius*) must occasionally visit the island, as they would be able to pick up a most luxurious living amongst the numerous Terns. Richardson's Skua, *Stercorarius crepidatus* (Gm.), is known to visit the African coast down to the Cape of Good Hope.

The summer months in Ascension are from October to January; and the birds' regular breeding-season is from the middle of December to the end of February. There is commonly said to be an irregularity in the case of the Wideawakes (*Sterna fuliginosa*), which is subsequently mentioned. At this time also the female turtles come up from the sea to deposit their eggs. At this season the island is visited by several species in vast numbers, which come from all sides to breed; and even when the migrants have departed, the surrounding seas never seem to be quite deserted, owing to the number of resident Gannets, Tropic-birds, and Frigate-birds. The latter feed on small fish, with which they seem to fill their scarlet pouches—pelicanwise; while crabs form the staple food of the Tropic-birds, and their powerful beaks show that a good-sized crab would have but little chance with them.

As the birds on the island are not allowed to be ruthlessly destroyed, the consequence is that most of them are very tame, and any specimens wanted can be generally taken by hand.

The accompanying map of the island will show at a glance the positions of the different breeding-places.


ISLAND OF ASCENSION.
Boatswain Bird I.
South East Head
Green Mountain 2820
III
II
I
North Point
Pyramid
GEORGE TOWN
Gannet Bay
South Point
Mars Bay
Observatory
7° 54'
55'
56'
57'
58'
59'
18'
19'
20'
21'
22'
23'
24'
25'
14° 26'

I., II., III., Wideawake fairs.

To the north-west are rocky islets, where *Anous stolidus* breeds.

Boatswain-bird Island. On the sides—on ledges, *Anous melanogenys, Gygis candida*; in holes, *Phaeton æthereus, Ph. flavirostris,* and Petrels. On the top a colony of *Sterna fuliginosa*; scattered indiscriminately *Sula cyanops, Sula leucogaster, Tachypetes aquilus.*

There are several published accounts of the birds of Ascension, though the greater number of these chiefly relate to "Wideawake fair." The following list, I believe, includes all the most important:—'Proceedings of the Zoological Society,' 1856, p. 144, by Mr. Sclater; 'Ibis,' 1868, p. 286, by Commander Sperling; 'Zoologist,' 2nd ser. 1867, p. 979, by Dr. C. Collingwood. As regards the determination of the species I must especially thank Mr. Howard Saunders for the kind way in which he has helped me.

Frigate-bird (*Tachypetes aquilus*).

Three adult (two ♂ and one ♀), one about three parts fledged, one quite young in down.

This is the largest bird known at Ascension, where the species exists in considerable numbers, and, from the size and peculiar motion of the scarlet pouch when flying, always attracts attention. They are only known to breed on the top of Boatswain-bird Island, a fairly flat tableland, about two acres in extent, covered with guano a few inches deep. This ground they share in company with two species of Gannets and a small colony of Wideawakes, elsewhere mentioned. These birds have considerable difficulty in rising from the ground; but once on the wing the ease and grace of their flight has been commented on by many travellers and sailors. The adult males alone have the scarlet crop. The young are covered with perfectly white down. The about three quarters fledged show a general resemblance to the adults, except that some of the feathers on the middle of the back are tawny, fringed with yellowish white, the same parts being of a glossy black in the adults.

Tropic- or Boatswain-bird (*Phaeton æthereus*).

Four adult, one young in down, one egg.

All the three species of *Phaeton* and some other sea-birds, such as the smaller Skuas, are familiarly called Boatswain-birds by the sailors, owing to the resemblance of the projecting tail-feathers to a marling-spike.

The present species is the largest of the genus, and, from its barred plumage, is probably the most generalized, as an immature specimen of *P. flavirostris* which I have seen was barred across the back, like the adult of *P. æthereus,* but in the adult of *P. flavirostris* this barring is lost.

P. æthereus breeds in holes on the sides of Boatswain-bird Island, and, like most of the other birds of Ascension, only lays one egg. Curiously enough, male and female are found sitting in their holes side by side, with their heads inwards; and as soon as one has been drawn out it begins to use its beak to considerable purpose.

The specimens brought home were just beginning to change their plumage, and in only one of the adult specimens are the two tail-feathers at all conspicuous; in the last example there is one old feather and a new one, about two thirds the length of the other.

PHAETON FLAVIROSTRIS.

One egg from Boatswain-bird Island.

This species, the best known of the genus, was rather scarce, and Mr. Gill only obtained one adult specimen, which was stolen during transit. They were breeding in holes on the side of Boatswain-bird Island.

The egg is somewhat smaller than that of *P. æthereus*; and this particular specimen is somewhat peculiar, the chocolate markings being collected round the larger end, whereas a specimen in Mr. Saunders's collection that I have seen is uniformly coloured; and this is, I believe, the rule throughout the genus. The fact that these two species of *Phaeton* had both been found nesting in such close proximity, has already been recorded by Messrs. Sclater and Salvin (P. Z. S. 1878, p. 651) in one the Reports on the birds collected by H.M.S. 'Challenger,' and is a point of considerable interest, as Ascension is, I believe, the only place as yet known where they both breed.

WIDEAWAKE (*Sterna fuliginosa*).

Two adult, three young, five eggs.

Although several accounts have been written of their principal breeding-place, which is known as "Wideawake fair;" the following facts may be worth mentioning. On Ascension itself there are three "fairs," marked on the map (p. 275) and numbered according to their size. The first is by far the most important, and probably contains at least twice the number of birds of all the others put together. They begin to breed first at No. III., which is the least disturbed; but the others soon present a scene of great excitement. The fair No. I. was at just about its full height at the end of December, and had been going on for about six weeks before that. The first appearance of these birds in 1877 was during the first week in October; and they continued to arrive daily for about two months. Their annual coming is said to be somewhat irregular; and they are stated to breed three times in two years, concerning which Mr. H. Saunders has kindly allowed me to make the following extract from a letter to him from Mr. Unwin, dated September 5, 1876:—

"The 'Wideawake' visits this island at, and remains for, very uncertain intervals, *not every eight months*; of this I am very certain, from nearly four years' experience. Were not their eggs used so largely for food in this barren place, one could form some idea as to the length of time nature intended them to remain. I may, of course, be 'miles out' in my opinion; but I fancy that, were it possible to take away the eggs immediately they are laid, the birds would not leave for a very considerable period. Last year they remained months longer than usual, owing to a very unusual downpour of rain, which flooded their breeding-ground and killed thousands of young birds. They left about May and were back in August. It seems to me that no matter how often an egg is taken, another is laid, and the old birds still persevere in trying to rear a young one."

They have a considerable settlement on the top of Boatswain-bird Island; but the numbers are insignificant when compared with even that of the smallest fair. Each bird normally lays only one egg; but when constantly plundered the same bird lays several times; and those who collect get, in a good morning's work, about 200 dozen eggs. This fairly shows the number of birds and their closeness together. The eggs are said not to be so good as Plovers' eggs, having a slight fishy flavour. The eggs are generally of a white or bluish-white ground-colour; but the markings vary to every possible shade of red, brown, and purple. Only recently has it been ascertained how these eggs may be distinguished from those of *Anous stolidus* (see notice of that bird). The series brought home is a very instructive one.

The youngest still retains on its beak the shell-breaking knob; the down on the back is of a uniform brown, but each plumule is tipped with white; the breast is of pure white down; the primaries, which are just visible, show that they intend to be black, transversely barred with white. On emerging from the downy state the young becomes sooty brown on the underparts; but in course of time this changes to the full white of the adult. The next in age is about a quarter fledged, and shows very plainly the transverse markings right across the back and wings. The third is nearly fledged; and the markings on the wings begin to be less conspicuous, whilst those on the back remain. The rest are in perfectly adult plumage, and are probably just completing their moult, as I find an unequal length in their new outer tail-feathers in both my specimens. These birds after the breeding-season scatter themselves over the waters of the North and South Atlantic, occasionally straggling as far as our own coast.

They are wonderfully powerful flyers, and must at times be for many days on the wing. Even whilst catering for their young they are supposed to travel great distances, as Mr. Gill, whilst one day at the largest "fair," caught a bird in his hand with a small fish in its beak which was not recognized as an inhabitant of Ascension waters. This bird must have been fishing at some distance.

WHITE NODDY (*Gygis candida*).

Two adult birds, three eggs.

The birds are in fully adult plumage, and appear to have lately moulted, only the tips of the wings being slightly abraded. This beautiful bird is, in many respects, of peculiar interest; and its geographical position here was first established by skins brought home by the 'Challenger'

(Saunders, P. Z. S. 1877, p. 797). The eggs of this form, which are somewhat large for the size of the bird, differ from those of all other Terns, being of a much darker ground-colour, and very distinctly scrolled. They were found on ledges on the side of Boatswain-bird Island; and each bird had but one egg. There were not many pairs; and they kept quite distinct from each other and from the enormous number of lesser Noddies (*Anous melanogenys*).

NODDY (*Anous stolidus*).

Two adults, nine eggs.

These birds were not numerous, and only bred in company with a few Gannets on some small rocky islets off the north-west corner of Ascension, each pair keeping to themselves and to the care of their solitary egg.

The eggs are rough and dull, and may be easily distinguished from Wideawakes', in which the surface is smooth and shining, the ground-colour being in the *Anous* more cream-coloured; and the markings are less varied, generally small, and situated at the larger end of the egg.

ANOUS MELANOGENYS.

Fourteen adults, one egg.

These birds, by far the most interesting portion of the collection, require some detailed notice. The first obtained by Mr. Gill were shot flying over Mars Bay. Not knowing what they were, he showed them to Mr. Unwin, who said that they were *Sterna leucocapilla*, and that they had never been known to visit the island before. Had they done so, Mr. Unwin would have been sure to have noticed them. But when, on the 4th of January, 1878, Mr. Gill visited Boatswain-bird Island, the face of the rock was literally covered, and looked quite black with the birds, which were then in the height of their breeding-season, and almost every available ledge was occupied by its row of birds, each pair by their single egg. Now just about the same time the previous year Mr. Unwin visited the island, and not a single bird was then there; so it seems as if this were their first visit to the island. The birds brought home were all shot at Mars Bay early in

December; and most of them show signs of beginning to moult, and so look rather dingy, the new feathers looking quite black in contrast with the old faded ones.

The bird is plainly *Anous melanogenys* (Gray), and not *A. leucocapillus* (Gould), the latter being, in fact, a somewhat doubtful species, and further material being much needed to clear up the point.

Anous melanogenys has an extensive range, reaching from the coast of Honduras down to Australia and Polynesia; but until recently it has generally been confounded with *A. tenuirostris* (Temm.), a species which has *grey*, instead of *dark black* lores (Saunders, P. Z. S. 1876, p. 670, pl. lxi.). The egg is similar to that of *Anous stolidus*, but smaller and rather more pointed.

Booby (*Sula leucogastra*).

Two adults, two young (about half fledged), two eggs.

This well-known bird requires little mention. It was found breeding in considerable numbers on the top of Boatswain-bird Island, and a few pairs in company with the Noddies (*Anous stolidus*) on the isolated rocklets before mentioned. The only interest attaching to these is that, in company with the other inhabitants of Boatswain-bird Island, they are depositing a store of guano which may, at some far future period, return to our Government some of the money which has been spent on this naval station; and had it not been that the Governor of Ascension went to prospect, and took Mr. Gill with him, this present collection of skins might never have been formed. The adults are in very fine plumage, and were taken on Boatswain-bird Island, as also the two young birds. Both of these are rather more than half-grown, and are very like their parents, except that where the latter are white they are of a dull dusky brown, the tips of the feathers, however, being pretty regularly sprinkled with greyish white.

Sula cyanops.

Two adults, three young, quarter to half fledged.

This bird is rather larger than the Booby, *Sula leucogastra*, and is far more like our common Gannet. They were breeding in the same places as the Boobies. The young specimens brought home show no points of special interest, the series being perfectly gradual; and they do not pass through the extraordinary changes of plumage our English Gannets do.

PETREL (*Procellaria melanogastra?*).

One egg.

Found lying in a crevice on the rocks during the ascent of Boatswain-bird Island. This egg being very hard-set, Mr. Unwin very kindly injected it with arsenic; and it is now in spirit. On showing it to Mr. Salvin he confirmed my supposition that it was the egg of one of the Swallow-Petrels (*Procellaria* or *Oceanites*); but no Petrel has been recorded from the island, which is not, however, to be wondered at, considering their crepuscular habits.

XXII.—*Note on the* Milvus govinda *of Sykes.*

By W. EDWIN BROOKS.

In the Zoological Society's 'Proceedings' for 1832, Col. Sykes described his *Milvus govinda* as follows:—

> "*Milv.* capite, nuchâ, corporeque subtùs rufescenti-brunneis, plumis in medio fusco lineatis; dorso, alis, caudâque satis furcatâ saturatè brunneis, illarum pteromatibus pallidioribus, hâc fusco obsoletè fasciatâ. Longitudo corporis 26 unc., caudæ 11."—*P. Z. S.* part ii. (1832), pp. 80, 81.

The above is the original description of this Kite; and no Indian Kite but *M. melanotis* ever reaches the size indicated by Sykes. There are only two of Sykes's Kites in the Indian Museum at Kensington; and they are said to be his types. I have examined them; and the larger of the two is, beyond all doubt, *M. melanotis*, T. & S., in immature plumage, with an occasional red feather appearing here and there. The lesser bird of the two is of an entirely different species, and is what I call *Milvus affinis* of Gould.

Sykes's total length of 26 *inches, and the tail* 11 *inches, could never have belonged to the lesser bird.* We see that Sykes obtained both birds; but his description carries more weight with it than the types, because the types are diverse, and prove nothing but that Sykes did not distinguish between *M. govinda* and *M. affinis*. The dimensions of the larger bird of the two agree with the description; and we must therefore regard the larger species as *M. govinda* of Sykes, of which *M. melanotis* and *M. major* are synonyms.

I have read Mr. Gurney's paper in the January number of 'The Ibis' for 1879; and with most of his conclusions on this subject I am entirely at variance. Mr. Gurney informs us that he has followed the example set by Messrs. Sharpe and Hume in calling a comparatively small Kite *M. govinda*. It is a pity that three eminent ornithologists should go astray; but I can't follow them with Sykes's original description before me, and I hope they will be left alone in their error.

Mr. Gurney speaks of intermediate birds between *M. melanotis* and *M. affinis*. I have never seen such a thing. There is a very clear line between the great Hill-Kite and the common Kite of the plains; and let it be remembered that one bird is a *migrant* and the other is *not*. Each bird is subject to immense variation, both as regards size and colour; but when once they are well understood, there is no difficulty whatever. As a rule, the superior surface rufous, the white patch under the wings, together with the light under tail-coverts and light under surface of the tail, mark the larger Kite. Occasionally it is without the white patch under the wing; but this is rare. The young of each species in first plumage are very distinct. I ought to have noticed the dark ear-coverts of the larger Kite when speaking of its characteristics.

M. affinis, the lesser Kite, varies extremely. *There are numbers of entirely dark birds to be had in India*, showing not a speck of white on the under surface of the wing. These are the very old birds. I am not sure whether both sexes get thus dark, or only one. I have seen such dark birds paired with lighter ones. In the second year the wings are variegated with white underneath; and in this stage they are the *M. palustris* of Anderson (P. A. S. B. 1873, pp. 142–147). I can't say how long it takes for a light bird to become a dark sooty-coloured one. The very great difference as regards size and colour of this species is apparent when forty or fifty are circling above one at the same time.

In the face of the original description and of one of the types, I think Messrs. Sharpe's, Hume's, and Gurney's conclusion most arbitrary and unreasonable. It is purely a fanciful conclusion, and quite against facts. I am afraid all the ornithological world will now take the leap, and call the small Kite "*Milvus govinda,* Sykes"—a bird never described by Sykes at all.

I cannot find ground for two species of the lesser Kite. I tried to do so once, and called the supposed bird *M. palustris*; but the name was withdrawn when the bird was discovered to be the two-year-old *M. affinis.* Should such a very unlikely thing occur as a third Indian Kite, its name would be *palustris*; but I have no expectation of the revival of the supposed species.

Mr. Gurney's foot-note, 'Ibis,' 1879, p. 79, should be observed. I don't think Mr. Hume disproved my position in the very slightest. This was, that a 26-inch Kite, with an 11-inch tail, backed up by a type of the same size, could not be the small common Indian Kite, the length of which is from 21 to 23½ inches. Mr. Hume once supposed that Sykes had stretched his Kite before measurement; but he did not stretch *Circus pallidus* and other birds; and there is the specimen of his own collecting to support the great total length. I have examined it most carefully; and once again I say it is the larger Kite, which is identical with *M. melanotis,* T. & S., and *M. major,* Hume. After this protest I shall let the matter alone; but it will be interesting to see how many writers will follow the three above-mentioned ornithologists, who have fallen into a most grievous error, from which I am afraid there is no chance of reclaiming them.

XXIII.—*Additional Notes on the Ornithology of Transvaal.* By THOMAS AYRES. Communicated by JOHN HENRY GURNEY.

[Continued from 'The Ibis' for 1878, p. 411.]

[As in previous papers, I have numbered the species not included in Mr. Ayres's former Transvaal lists consecutively with those recorded in his preceding notes.—J. H. G.]

The greater part of the birds mentioned in the following notes were collected by me in the Magaliesbergen. The mountains so called consist of many ranges, interspersed with broad flat valleys miles in extent and width, in one of which is situated the village of Rustenburg.

308. AQUILA VERREAUXI, Less. Verreaux's Eagle.

I found these Eagles amongst the most inaccessible precipices of the Magaliesbergen; here and there a pair had possession of a precipitous range and were breeding. I saw the nest on two occasions, and on one, by getting to a height above, I could see the old bird on the nest; but I did not succeed in bagging a specimen. Once I was perched on the top of a crag at the edge of a sheer precipice of three or four hundred feet, when one of these Eagles passed over me from behind, and I gave it such a dressing that it half fell, half flew, about a quarter of a mile down the ravine, and at last fell on the ground with a thump. I descended as quickly as possible, making sure that I should get the bird; but when I came up to within about a hundred yards of where it had fallen, it recovered and flew slowly round the bend of the precipice, and I lost sight of it altogether.

[Although Mr. Ayres did not succeed in obtaining a specimen of this Eagle, there is no doubt that he correctly identified it, as in its adult plumage it could not be mistaken by so accurate an observer, differing, as it does, most conspicuously from every other species of the genus *Aquila*.—J. H. G.]

309. ASTURINULA MONOGRAMMICA (Temm.). One-streaked Hawk.

Male, Rustenburg, August 12, 1878. Irides lake-red; bill dusky brown, basal part and cere light scarlet; tarsi and feet red-orange. Total length 13¼ inches, bill from gape 1, tarsus 2¼, tail 5½, wing 9.

Female, Rustenburg, January 24, 1878. Bill black, base red; legs red*.

One of these Hawks was shot by my brother during the summer; and the other I shot in the early spring. They are the first of the kind I have met with, and certainly never appear, so far as I know, in the Potchefstroom district. Above Rustenburg they appear to be not uncommon during our summer months; but as winter approaches they disappear; I saw but two in the spring, solitary birds, and exceedingly shy.

[I believe the species has never before been noticed in so southern a locality on the eastern side of the African continent; on the western side a specimen from the vicinity of the Okavango river is recorded in my edition of the late Mr. Andersson's 'Notes on the Birds of Damara Land,' p. 26.

The male bird sent is in full adult plumage; the female, which was just commencing her moult, has all the grey portions of her older suit of feathers perceptibly tinged with brown, which I take to be an indication of immature plumage.

I have frequently observed in birds of prey killed when the period of moulting had approached, that the pale-coloured portions of the rectrices have become much more worn than the dark portions; such is remarkably the case in the present specimen as regards the central pair of rectrices, in which the white transverse bar is greatly worn, and much more so than the adjacent dark portions of the feather.

In 'The Ibis' for 1876, p. 484, I referred to the near affinity which exists between this species and the genus *Melierax*, which has been subsequently confirmed by an observation of the late Mr. E. C. Buxton†, that this bird has a song (which he heard uttered by it on the coast opposite

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* [Mr. Ayres does not give the measurements of this specimen from the flesh; but I have taken the following from the skin:—wing 9·8 inches, tarsus 2·4.—J. H. G.]

† *Vide* P. Z. S. 1878, p. 791.

Zanzibar) evidently analogous to the musical notes of *Melierax canorus* and of *M. gabar.*—J. H. G.]

Melierax canorus (Rislach). Chanting Hawk.

Adult, Rustenburg, June 10th.

In the more northern and wooded parts of the Rustenburg district this bird is common, and exceedingly tame in some instances.

Melierax gabar (Daud.). Gabar Hawk.

Male adult, Rustenburg, August 8th. Iris brownish lake-red.

Female adult, Rustenburg, July 31st. Iris lake-red.

Not by any means plentiful about Rustenburg. One of these birds attempted to carry off a Golden-breasted Bunting that I had killed, but failed in the attempt.

310. Accipiter minullus (Daud.). Least African Sparrow-Hawk.

Female immature, Rustenburg, July 1st. Irides pale gamboge-yellow; cere and eyelids pale greenish yellow; bill black horn-colour; tarsi and feet dingy pale yellow.

The specimen sent is the only one which I saw during a three months' stay in the Rustenburg district; I found it on a thickly wooded hill-side.

Tinnunculus cenchris (Naum.). Grey-winged Kestrel.

Male adult, Potchefstroom, February 8th.

Female adult, near Potchefstroom, May 2.

Bubo maculosus (Vieill.). Spotted Eagle-Owl.

Male, Rustenburg, July 20th. Irides bright yellow.

This is a very scarce Owl about Rustenburg, the specimen sent being the only which I saw whilst there.

Glaucidium perlatum (Vieill.). African Pearl-spotted Owlet.

Male, Rustenburg, July 9th.

Male, Rustenburg, July 26th.

Female, Rustenburg, July 9th.

In all the above the irides were bright gamboge-yellow, the bill pale greenish yellow, and the feet pale dingy yellow.

These pretty little Owls are by no means uncommon in the Rustenburg district; but they are not easily seen; and on a too near approach to the tree on which they are they fly off very silently, and with the exact flight of a Thrush. Unless you know the Owl you at once mistake it for a Thrush; I lost several in that way. Those I came across were solitary birds.

The Drongo Shrikes imitate the loud notes of these Owls very neatly, and have led me many a dance over rough ground through the bush in pursuit, as I thought, of the Owl; but at last I found, to my disgust, that it was only the Drongo amusing himself.

[As Mr. Sharpe, at p. 211 of the second volume of his 'Catalogue of the Birds in the British Museum,' remarks in reference to this species, "Nothing is as yet precisely known regarding the young plumage of this Owl," I may mention that the Norwich Museum possesses two fledged nestlings, procured in the Transvaal by Mr. Ayres some years since, and both marked by him as males. These young birds differ from the adults in the entire absence of white spots from the upper surface of the head and neck, from the interscapular feathers, and from the lesser and median wing-coverts; they show the white nuchal collar, but not the rufescent collar which in adult birds adjoins the white, to which it forms a kind of posterior edging; in other respects the plumage of these nestlings resembles that of the adult.]

311. Caprimulgus lentiginosus, Smith. Freckled Goatsucker.

Male, Rustenburg, May 27th. Irides umber; bill dusky; tarsi and feet dusky brown.

Male, Rustenburg. July 13th.

Female, Rustenburg, May 30th. Irides dark umber; bill dusky brown; tarsi and feet dingy brown. Stomach contained beetles.

Female. Rustenburg, June 13th.

This is the only kind of Goatsucker which I met with about Rustenburg; they frequent the edges of bushy hill-sides, getting well under shelter during the day, and coming out to feed in the open in the evening; they are generally solitary, and I never found more than two together.

[The two male specimens of this scarce Goatsucker sent by Mr. Ayres respectively measure in the wing 7·95 and 7·9 inches, and the two females 7·9 and 7·6. Both the males are somewhat darker than the females on the entire upper surface, and much darker than Sir A. Smith's figure* of a female obtained by him in Great Namaqua Land; they are also somewhat darker than the specimen preserved in the British Museum, which was obtained at the river Cunéné, and which, judging from the absence of any white patch on the tail, is also a female. One of the males sent by Mr. Ayres shows a large subterminal patch of pure white on both webs of the two outermost pairs of rectrices; this white patch reaches to the edge of the feather at the tip of the inner web on the pair of rectrices next to the outermost pair; and on the latter it does so very nearly; in the other male all these feathers have been cut off (apparently by a shot), except one of the external rectrices, in which the white patch is even more extended than in the first-named specimen, being fully an inch and a half in length. No trace of any white patch is to be found on the tail of either of the female birds.

In both the males, and in the larger of the two females, there is a white spot on the inner web of the first four primaries; in the other female it is present in the first three only†.—J. H. G.]

MEROPS BULLOCKOIDES, Smith. White-fronted Bee-eater.

Male and female, Rustenburg, June 11th. Irides dusky; bill black; tarsi and feet dusky.

These Bee-eaters are exceedingly common about Rustenburg; towards evening they go in flights, appearing to congregate and roost at certain known localities, generally on the sides of a gully with perpendicular banks, on the ledges of which they sleep; in such situations they also breed during the summer months, as is evident from the many holes bored in the banks; during the day they generally disperse, and may then be found solitary, or but two or three together.

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* *Vide* 'Illustrations of South-African Zoology,' Aves, pl. 101.

† I have recorded a similar instance of variation in this particular in *C. rufigena* in 'The Ibis' for 1877, p. 341.

[Livingstone mentions seeing this species, and also *Merops apiaster*, breeding in society in holes in the banks of the river Leeambye in November or December (*vide* 'Missionary Travels,' p. 248); see also Mr. Buckley's account of the nidification of this Bee-eater on the banks of the Limpopo in 'The Ibis' for 1874, p. 363.—J. H. G.]

MEROPS PUSILLUS, Müll. Rufous-winged Bee-eater.

Male and female, Rustenburg, June 17th and July 22nd. Irides bright crimson; bill black; tarsi and feet dusky.

A common species about Rustenburg, frequenting sparsely wooded localities, and pretty generally distributed.

312. CORACIAS CAUDATUS, Linn. Lilac-breasted Roller.

Male, Rustenburg, July 30th. Irides light umber; bill black; tarsi and feet pale olive-green.

Female, Rustenburg, July 27th. Irides tawny; bill, tarsi, and feet as in the male. Stomach contained beetles and grasshoppers.

I found these Rollers scarce and very wild; they were solitary, or, at most, in pairs; they frequent the wooded parts of the Megaliesbergen, apparently prefering some hill-sides to others, and high trees to the lower bush.

[In the pair of these birds sent by Mr. Ayres the exterior rectrices are about half an inch longer in the male than in the female. The late Mr. E. C. Buxton, who met with this species near the Lo Bombo mountains in August 1872, wrote to me respecting it as follows:—"The easiest way to get these birds was to set the grass on fire; as soon as there was a large fire (and sometimes many acres would be burning at once), these birds came in numbers to feed on the insects that were driven out; and, in fact, all the insectivorous birds came, to say nothing of Crows and other birds."—J. H. G.]

313. CORACIAS NÆVIUS, Licht. White-naped Roller.

Male, Rustenburg, June 24th. Irides ashy brown; bill black; tarsi and feet dull greenish yellow.

This Roller is much scarcer than the preceding species; it is much more easily approached, especially at the first attempt; but it requires a hard rap to bring it down. I always found it solitary. I was told that the Rollers become more plentiful towards our summer months.

HIRUNDO DIMIDIATA, Sund. Pearly-breasted Swallow.

Sex uncertain, Rustenburg, May 29th.

Female, Rustenburg, July 29th.

In both the above, irides dusky; bill, tarsi, and feet black.

During our winter these birds are common about Rustenburg; they seem for the most part to keep in pairs, and one may often see two of them sitting side by side on the dead twig of some tree. They are most unsatisfactory birds to skin; for they are generally so fearfully fat and oily that manipulation causes the oil to run all over the feathers, and the skin turns out a greasy mass which one tears to pieces in disgust.

COTYLE FULIGULA (Licht.). Brown Martin.

Male, Rustenburg, August 7th. Irides dusky; bill nearly black; tarsi and feet dusky.

This species is also tolerably common in the Rustenburg district, much more so than at Potchefstroom.

ALCEDO SEMITORQUATA, Swains. Half-collared Kingfisher.

Male, Rustenburg, July 4th. Irides dusky umber; bill black; tarsi and feet light red.

According to my experience this Kingfisher is decidedly a scarce species throughout the Transvaal; the specimen sent is the only one that I saw during three months in the Rustenburg district.

CORYTHORNIS CRISTATA (Linn.). Malachite-crested Kingfisher.

This species is much scarcer in the Rustenburg district than it is about Potchefstroom.

CERYLE MAXIMA (Pall.). Great African Kingfisher.

Female, Rustenburg, July 4th. Irides dusky umber; bill black; tarsi and feet dusky.

This is a very scarce bird in the Rustenburg district; the specimen sent is the only one that I saw there.

Halcyon albiventris (Scop.). Brown-hooded Kingfisher.

This is a common species in the Rustenburg district, where its loud note often attracts the attention of the hunter; it is mostly solitary. Two of the specimens sent contained locusts in the stomach; they were both shot on the 12th of June.

[Mr. Sharpe, in his monograph of the Kingfishers, and also in his edition of Layard, alludes to the differences in plumage which exists between specimens of this Kingfisher. The following are particulars of the five specimens sent to me by Mr. Ayres, by whom the notes of the colour of the bill and soft parts were made from the birds in the flesh. They were all obtained at or near Rustenburg.

No. 1, ♂, June 12th. Wing 4·3 inches, bill from forehead 1·7. Bill blood-red, but dusky towards the tip, ridge, and gonys; tarsi and feet dull blood-red, but rather dusky on the upper surface. This specimen agrees with Mr. Sharpe's description*, except that the lesser and median coverts are narrowly edged with brown, and that a decided tinge of green is perceptible on all the blue portions of the plumage.

No. 2, ♂, July 19th. Wing 4·4 inches, bill 1·8. Irides dark umber; bill dull red; tarsi and feet dusky brick-red.

The plumage of this specimen closely resembles that of No. 1, except that the blue is not tinged with green, and the upper surface of the head is decidedly darker.

No. 3, ♂, July 22nd. Wing 4·4 inches, bill 1·8. Irides as No. 2; bill dull rose-red; tarsi and feet red, with the upper surface dusky.

This resembles No. 2, except as regards the head, which is as in No. 1; the pectoral striæ are also less strongly marked than in Nos. 1 and 2.

No. 4, ♂, July 27th. Wing 4·3 inches, bill 1·6. Irides, bill, tarsi, and feet as in No. 2.

In this specimen the blue on the wings (but not elsewhere) is much duller than in the preceding examples, and is decidedly tinged with green; the entire mantle, instead of being black, as in Nos. 1, 2, and 3, is dark brown, the wing-coverts being slightly edged with a paler brown; on the under surface the feathers of the throat have decided dark shaft-marks (which are quite absent in Nos. 2 and 3, and barely perceptible in No. 1); the pectoral striæ are broader, and the flanks and crissum more strongly tinged with fulvous than in the preceding specimens. I imagine that this individual is still in immature dress.

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* Mr. Sharpe's figure of this species in his Monograph represents it with a pure white eyebrow, which is probably a mistake of the colorist, as, according to his description, and also in the specimens sent by Mr. Ayres, this portion of the plumage is "pale yellowish brown."

No. 5, ♀, June 12th. Wing 4·3 inches, bill 1·8. Bill dull blood-red, dusky towards the tip; tarsi and feet as in No. 1.

This specimen resembles No. 4, except that the greenish blue of the wing is a little brighter, and that the under surface is less striated and less fulvous, resembling the same portion of the plumage in No. 2.

These details seem to point to the inference that in the fully adult males the mantle is black, while in younger males and in females it is dark brown.—J. H. G.]

HALCYON CHELICUTI (Stanley). Striped Kingfisher.

No. 1, ♂, June 3rd. Irides dark umber; bill dusky, but with the gape and basal part of the lower mandible red; tarsi and feet dusky on the upper surfaces and reddish on the under.

No. 2, ♂, July 23rd. Irides dusky umber; bill dusky (nearly black), but with the basal part of the lower mandible pale crimson; tarsi and feet brick-red, with the upper surfaces brown. Stomach contained a mouse and several grasshoppers.

No. 3, ♂, July 23rd. Irides &c. as in No. 2.

No. 4, ♂, July 27th. Irides &c. as Nos. 1, 2, and 3, but with the brown part of the bill tinged with red.

No. 5, ♀, June 3rd. Irides &c. as in No. 1.

No. 6, ♀, July 27th. Irides dusky; bill light reddish brown, with the basal part of the under mandible crimson; tarsi and feet as in No. 1.

All the above-mentioned specimens were procured in the Rustenburg district, where this pretty species is as common as the preceding one, and with much the same habits, though, being smaller, it is scarcely so conspicuous.

[I find that in the six specimens sent by Mr. Ayres, the length of the bill from the forehead is about 1·2 inch, with hardly any perceptible variation; in one male the wing-measurement is 3·3 inches, in one female 3·4, in two males and one female 3·45, and in the remaining male 3·5.—J. H. G.]

314. CINNYRIS AFRA (Linn.). Greater Double-collared Sun-bird.

This Sun-bird is common in the Rustenburg district, feeding about the flowers of the plantains in gardens, and about the dark rose-red blossoms of a parasitic plant which is very plentiful on many of the bush trees and shrubs.

315. CINNYRIS TALATALA, Smith. Andersson's Sun-bird.

Male, Rustenburg, August 9th. Irides umber-brown; bill, tarsi, and feet black.

This species is common in the same localities as the preceding one.

316. CINNYRIS AMETHYSTINA (Shaw). Amethyst Sun-bird.

Male, Rustenburg, August 3rd. Irides, bill, tarsi, and feet black.

This Sun-bird is very plentiful in some localities, notably about "Oliphants Nek," a pass in the Magaliesbergen, about twelve miles from Rustenburg, where there is a good deal of bush and much parasite plant.

317. UPUPA AFRICANA, Licht. South-African Hoopoe.

This species is not by any means uncommon; it is found solitary or in pairs, frequenting wooded localities.

318. IRRISOR ERYTHRORHYNCHUS (Lath.). Red-billed Wood-Hoopoe.

Male adult, Rustenburg, June 7th. Irides dark umber; bill, tarsi, and feet bright crimson.

Male, young, Rustenburg, June 7th. Bill black; tarsi and feet pale red.

The loud note of these birds is frequently heard amongst the trees; but it is not always easy to get within shot of them, as they appear to know the sight of a gun. They generally occur in small companies.

[The young male bird sent by Mr. Ayres is in nestling-plumage, and entirely of a dull black, except the wings and tail, which are iridescent, as in the adult, but less tinged with purple; the tail is imperfect, but seems to have been shorter than in the adult; the bill not only differs in colour from that of the adult, but is very much shorter, the culmen, which measures 2·2 inches in the adult male sent by Mr. Ayres, being only 1·15 in the young one.—J. H. G.]

BUCEROS NASUTUS, Linn. African Grey Hornbill.

Female adult, June 10th. Irides reddish brown*; bill dusky red at the tip, the base of the upper mandible dingy white, but dusky brown round the nostrils, the base of the lower mandible black, with narrow transverse white stripes; the bare skin at the base of the lower mandible pale green; tarsi and feet dusky. Insects in the stomach.

This Hornbill is certainly not common about Rustenburg during our winter months. When found it is almost always in pairs; but a solitary bird is seen occasionally.

BUCEROS FLAVIROSTRIS, Rüpp. Yellow-billed Hornbill.

This species, like the preceding one, is found solitary or in pairs; it is sparsely distributed about the wooded hill-sides of the Magaliesbergen.

TRACHYPHONUS CAFER (Vieill.). Le Vaillant's Barbet.

Male and female. Irides lake-red; bill greenish yellow, dusky at the tip; tarsi and feet dusky ash-colour.

This curious Barbet is common enough; but as it is generally of quiet habits, slinking about dense bushes, it is not often noticed. Its note is peculiar, I can only compare it to the alarum of a clock going off at full speed, and then repeated constantly at intervals of a second or two, just time enough, I suppose, for the bird to get breath to run the alarum off again; sometimes they utter this call from the centre of a dense bush; at others they select a conspicuous dead bough, on the top of which they perch, with the bill pointed well upwards. This peculiar call of theirs can be heard at a considerable distance. They feed upon berries and fruits. My brother obtained three young birds of this species, which became very tame, and followed him all about the house, constantly letting off their alarm-note, and invariably doing so when pleased; they all unfortunately met with their deaths by accidents.

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* In another adult female, killed July 26th, the irides were hazel, and the bare skin adjoining the lower mandible pale dingy green.

Pogonorhynchus leucomelas (Bodd.). Pied Barbet.

Wherever bushy ranges are found this species is not uncommon.

319. Pogonorhynchus torquatus (Dum.). Black-cheeked Barbet.

Male and female. Irides dull red; tarsi and feet dusky, in some specimens dingy black.

These Barbets are very common; sometimes four or five of them may be seen together on the same bough, bowing and scraping to each other in a most comical manner, and singing out most lustily *ko-korro, ko-korro,* rapidly repeated.

320. Barbatula extoni, Layard. Exton's Barbet.

Male, Rustenburg, June 27th. Irides dusky umber; bill black; tarsi and feet dusky brown. Stomach contained berries of a mistletoe.

This Barbet is not at all uncommon in the Magaliesbergen, but, being an inconspicuous little bird, is easily overlooked; those I saw were almost always on or near a species of mistletoe, which, during our winter months, is well covered with berries, upon which these birds feed. Having nipped off a berry, the bird, with its head well up, cleverly divides it and discards the fruity shell, when the kernel seems to slip down its throat unawares, and the bird has a comical look, as if astonished at the result. Those I saw were solitary. The note is peculiarly loud for so small a bird.

321. Indicator sparrmani, Steph. Sparrman's Honey-Guide.

Male, Rustenburg, June 1st. Irides hazel; bill very pale pink; tarsi and feet dusky brown. Stomach full of bees, wax, and comb.

Female, Rustenburg, July. Irides light dusky brown; bill dusky horn-colour; tarsi and feet dusky.

I only saw three birds of this species whilst at Rustenburg, all solitary, and sitting silently on trees.

[As pointed out in Sharpe's edition of Layard, p. 167, the the female of this species "wants the black throat of the male," from which it also differs in the yellow shoulder-patch, the brown stripes on the flanks, the pale edgings to the wing-coverts, and the whitish ear-coverts being all much less conspicuous, and in the bill being of a different colour, as noted above, and somewhat shorter, the latter peculiarity resembling that which is observable in the females of many of the Larks.

These differences of colouring, which I have noted from the female bird sent by Mr. Ayres, agree pretty well with the observations of Heuglin on the same subject, quoted in Sharpe's paper on the Indicatoridæ in Rowley's 'Ornithological Miscellany,' vol. i. p. 202.—J. H. G.]

322. INDICATOR MAJOR, Steph. White-rumped Honey-Guide.

The specimen sent was a solitary one, and the bird is by no means plentiful about Rustenburg. The farmers much dislike having any of the Honey-Guides shot, as their lads frequently follow the birds to a bees' nest.

CHRYSOCOCCYX CUPREUS (Bodd.). Didric Cuckoo.

Male, Potchefstroom, February 14th. Irides dull red, eyelids dusky, almost black; bill dusky, but the under mandible palish; tarsi and feet dusky.

This bird flew out from amongst the grapevines in my garden, and settled in a thick fig-tree hedge, where I shot it nearly to bits, being very close. The bird had either a grape or an egg in its bill when I fired; but though I looked carefully about I could not find either. In the *stomach* was an egg partly digested, which I take to be that of *Passer arcuatus*; but I was not aware that the Cuckoos eat the eggs from the birds' nests they are accustomed to lay in.

When I picked up this specimen I thought it was a young one; but on examining the ovary and ducts I came to the conclusion that it was an old hen moulting.

I think I have stated before that these Cuckoos do not remain here during our winter months, June, July, and August.

[On comparing an adult male shot by Mr. Ayres on 2nd of December with an adult female which he obtained on 9th February, the only differences which I observe between them are the following: viz., the male has on the head a small white wedge-shaped patch, with its apex reaching to the base of the bill, and extending backwards to the centre of the crown; this is absent in the female; the white portions of the median wing-coverts extend only to the outer web of the feather in the male, but to both webs in the female; the breast, which is an almost pure white in the male, is decidedly tinged with fulvous in the female; the eyelids are noted by Mr. Ayres as "crimson" in the male specimen, and as "dusky" in the female.

The female bird recorded above as shot by Mr. Ayres on the 14th of February, has a more coppery tinge on the upper surface than the female just referred to as killed on the 9th of February, which I attribute to its being a somewhat younger bird, this coppery hue being conspicuous in still younger specimens, which retain a portion of the partially rufous immature dress (*conf.* Ibis, 1878, pp. 407, 408).—J. H. G.]

323. COCCYSTES GLANDARIUS (Linn.). Great Spotted Cuckoo.

Male adult. This was a solitary bird, shot 18th of January, amongst low mimosa bush, about fifteen miles from Potchefstroom; this species is very scarce indeed in these parts.

DENDROPICUS FULVISCAPUS, Ill. Cardinal Woodpecker.

No. 1, ♂, Rustenburg, July 8th. Irides brownish lake-red; bill dusky horn-colour, under mandible ashy; tarsi and feet pale greenish ash.

No. 2, ♀, Rustenburg, July 9th. Irides dark lake-red; bill dusky ash-colour; tarsi and feet as in No. 1.

No. 3, ♀, Rustenburg, July 19. Irides lake-red; bill dark dusky ash-colour; tarsi and feet olive-green.

No. 4, ♀, Rustenburg, July 26th. Irides lake-red; bill dusky towards the tip; tarsi and feet ashy olive.

This is the commonest of the Woodpeckers about Rustenburg.

[In Sharpe's edition of Layard's 'Birds of South Africa,' p. 190, this species is given under Gmelin's specific name of *cardinalis*. This title was founded on Sonnerat's description of a Woodpecker, of which that traveller remarks, "Je décrirai trois Pics que j'ai observés à l'isle de Luçon; le premier est de la taille du Pic vert . . . . On pourroit nommer cette première espèce le Pic Cardinal de l'isle de Luçon"*. I think, although the description given by Sonnerat suits the present species as regards colouring, the difference of size and of locality makes its title to be the bird described by Sonnerat too doubtful to be admitted; and I have therefore used for it the specific name of "*fulviscapus*," which I consider to be the oldest synonym undoubtedly referable to this species.

On reexamining a Woodpecker previously sent by Mr. Ayres, and recorded by me in 'The Ibis' for 1877, p. 342, under the name of *Dendropicus hartlaubi*, I am now of opinion that I ought to have referred it to this species, from which, I confess, I feel very doubtful whether *D. hartlaubi* is in reality specifically distinct. I observe that the late Professor Sundevall inclined to the same opinion, as, after recounting the slight differences which, in his opinion, distinguished *D. hartlaubi* from *D. fulviscapus*, he adds, "magnitudine omnibusque reliquis exacte cum præcedente convenit, nec aliter nisi varietas ejus localis haberi potest."—J. H. G.]

Campethera bennetti (Smith). Bennett's Woodpecker.

Not a common Woodpecker amongst the Magaliesbergen mountains, but somewhat more plentiful than the succeeding species.

[The specimen sent is in female plumage, though marked by Mr. Ayres as a male; perhaps it may be an immature male in female dress. It was shot near Rustenburg on 22nd July; the bill was noted by Mr. Ayres as "dark dusky ash," and the tarsi and feet as "ash-colour." I may add that the reference given under the head of this species in Sharpe's edition of Layard's 'Birds of South Afriça' (p. 182), to Malherbe's monograph, vol. ii. *pl.* 165, is a misprint for *page* 165; Malherbe figures this Woodpecker, pl. 95. figs. 1 & 2, and calls it in his letterpress "Le Chrysopic de Bennett ou d'Abington."—J. H. G.]

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* 'Voyage à la Nouvelle Guinée,' par M. Sonnerat, p. 72.

DENDROPICUS NAMAQUUS (Licht.). Bearded Woodpecker.

Male and female. Irides bright garnet-colour; bill dusky, with the under mandible lighter; tarsi and feet pale dingy olive-green.

A scarce species amongst these mountains, and withal hard to get; they seem to prefer the mimosa trees whereon to search for food.

324. JYNX PECTORALIS, Vig. Southern Red-throated Wryneck.

Male and female, evidently a pair, shot 6th and 8th of July, at Rustenburg, where this species is very scarce. I do not remember to have seen it previously in the Transvaal.

[To be continued.]

XXIV.—*On* Melaniparus semilarvatus.

By T. SALVADORI, C.M.Z.S.

(Plate IX.)

MR. HUME, in 'Stray Feathers,' vol. vii. p. 458, writes of my *Melaniparus semilarvatus* as follows:—"*There is a wretched species*, No. 649 ter of my list, viz. *Melaniparus semilarvatus* of Salvadori, of which I have for years tried to obtain a description. At last I wrote to Salvadori himself; but he, though very kindly favouring me with all his more recent publications, will not come to the front about this particular species. I conclude it is a bad species."

To this public appeal I must answer:—

1st. That I have no doubt, as Mr. Hume says so, that he

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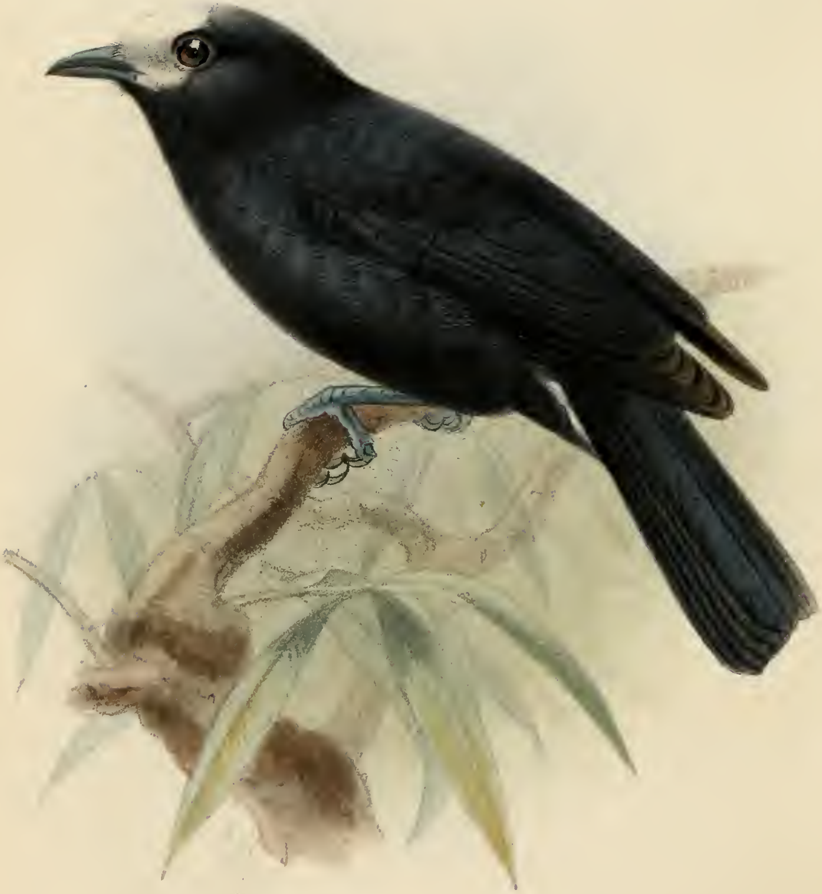

J G Keulemans lith.

Hanhart imp

MELANIPARUS SEMILARVATUS

has written to me, asking for the description of my *Melaniparus semilarvatus*; but that, at the same time, I must state that I have not the least recollection of having received such a request.

2nd. That had I received Mr. Hume's request, it would have certainly given me pleasure to meet it, *as I have always done* in such cases.

3rd. That, simply because he had not access to my description, or had not received it from me, Mr. Hume, according to my opinion, had no right to think, nor to state publicly, that I do not wish to "come to the front" about this particular species.

4th. That I am not too jealous of my own species, and that more than once I have destroyed some of them myself, as the discovery of the truth is invariably the object of my scientific researches.

5th. That many ornithologists know from experience that I never refuse to send any species of mine to be examined; so that the assertion of Mr. Hume that I don't wish to "come to the front" about *Melaniparus semilarvatus* is quite gratuitous.

6th. That Mr. Hume, having no access to the description of my bird, had merely the right to say that he was not acquainted with it, but not to condemn it as a "wretched species," which is, as I believe, hardly a polite expression.

As to *Melaniparus semilarvatus* being a bad species, I shall leave Mr. Hume himself to judge after having seen the accompanying plate (Plate IX.), which the Editors of 'The Ibis' have most kindly agreed to publish.

My *Melaniparus semilarvatus* is a most distinct species of the group, on account of the white face. There is a very surprising likeness in the colouring between it and *Pentholæa albifrons* (Rüpp.), which also is black, and has a white patch on the forehead. But I don't suppose that I shall need to point out the differences between a *Pentholæa* of the family Saxicolidæ and a true *Melaniparus* of the Paridæ. Besides, I may mention that the white patch on the forehead of *P. albifrons* is only superior, and does not come down on the sides of the face.

As I have said in the original description of *M. semilarvatus*, the Museum of Turin possesses two typical specimens of it. These are marked in the catalogue as having been received from Baron Solaroli, together with many other Himalayan birds. But after the publication of my description, I had some suspicions that those two birds, in reality, had been given to the Museum of Turin by Baron Rollet, together with other Central-African birds, among which were specimens of *Pogonorhynchus rolleti*, *P. leucocephalus*, and others described by De Filippi. I have no means of ascertaining the point positively; but I think that further researches will probably show that *Melaniparus semilarvatus* is an African bird; and if this is so, it will follow that all the members of the genus, or subgenus, *Melaniparus* are African*.

I think that the following species are to be included in the group *Melaniparus*:—

1. Melaniparus semilarvatus, Salvad. Atti Soc. Ital. Sc. Nat. viii. p. 375 (1865); Id. Journ. für Orn. 1868, p. 68.

Hab. in Himalaja, an potius in Africa centrali? (*Mus. Aug. Taurin.*).

2. Melaniparus leuconotus (Guér.), Rev. Zool. 1873, p. 162.

Hab. in Abyssinia (*Galinier et Ferret, Heuglin*).

3. Melaniparus niger (Vieill.), Nouv. Dict. H. N. xx. p. 325 (1818), ex Levaillant.

Hab. in Africa meridionali (*Layard* &c.).

4. Melaniparus leucomelas (Rüpp.), Neue Wirbelth. Abyssin. p. 100, t. 37. f. 2 (1835).

Hab. in Africa orientali-septentrionali (*Rüppell* &c.) et occidentali (*Swainson*).

Vix a *M. nigro* diversus, paullo minor. Specimina Africæ occidentalis (*Parus leucopterus*, Swains.) cum speciminibus orientalibus omnino conveniunt.

---

* The following circumstances lead me to believe that the two abovementioned birds were not given by Solaroli, but most probably by Baron Rollet. 1st. They were catalogued along with the several hundred birds certainly given by Solaroli; 2nd. Both these specimens were marked in the catalogue in De Filippi's handwriting, like the other birds received from Baron Rollet.

5. **Melaniparus funereus**, J. et E. Verr. Journ. für Orn. 1865, p. 104.
Hab. in Gaboon (*Verreaux*).

6. **Melaniparus rufiventris** (Bocage), Jorn. Sc. Math. Phys. e Natur. n. xxii. (Extracto, p. 20) (1822).
Hab. in Angola (*Anchieta*).

XXV.—*On the Systematic Position and Scientific Name of "Le Perroquet mascarin" of Brisson.* By W. A. Forbes, M.B.O.U. &c.

During a visit to Paris last autumn in company with Mr. Sclater and Dr. Hartlaub, I had an opportunity of seeing for the first time, in the gallery of the Museum of the Jardin des Plantes, one* of the two sole extant specimens of "Le Perroquet mascarin" of Brisson, the "*Coracopsis mascarina*" of most authors. This specimen is not improbably that described by Brisson, and is still in a fair state of preservation, though its wings and tail are rather damaged. On seeing it I was at once struck with several points in which it differed conspicuously from the other species usually placed in the genus *Coracopsis*; and after my return to England, at my request, Prof. Alphonse Milne-Edwards was kind enough to have life-sized sketches of the head and foot of this specimen made for me, which are here reproduced, all the figures we have of this species being more or less reduced in size. As will be seen from the drawing (fig. 1, p. 304), the beak in this species is very large and deep, not so compressed and elongated as in *Psittacus* or *Coracopsis*, but more like in shape that of a large-billed species of *Tanygnathus* or *Palæornis*. Moreover the beak is *red*†, as in most of the species of the two last-named genera; whereas in *Psittacus* or *Coracopsis* it is black, or dirty white. The head is fully feathered*, the frontal plumes covering the cere, so that the nostrils are concealed by them.

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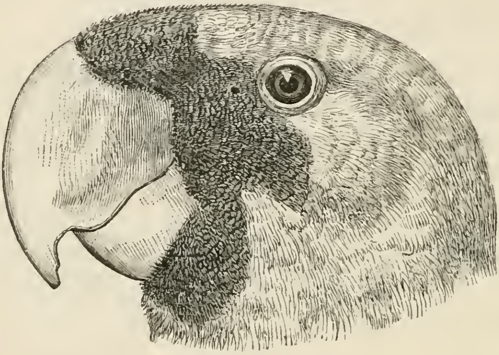
* The other is in the Vienna Museum (*cf.* Pelzeln, Ibis, 1873, p. 32).

† Du Bois (*cf.* Ibis, 1876, p. 286) calls it "couleur de feu."

Fig. 1.



Head of *Mascarinus duboisi.*

The lores also are fully feathered, and there is only a narrow circumorbital ring left naked. In all the species of *Coracopsis* the cere is large and conspicuous, being quite bare of feathers, there is a large nude circumorbital ring, and, particularly in *C. vasa,* the lores are sparingly feathered†. In *Psittacus* the cere and nostrils are equally conspicuous, and the lores and cheeks even more sparingly feathered.

The feet (figs. 2, 3) differ from those of *Coracopsis* in their shorter and thicker tarso-metatarsi and shorter nails. Prof. Alphonse Milne-Edwards extracted the lower mandible from the stuffed specimen in the gallery of the Museum, and has figured it in his article on the various forms of that bone in the different groups of Parrots‡. He says that it differs markedly from that of the species of *Coracopsis*, and perhaps more nearly resembles that of the genus *Chrysotis* than any other. It is not at all related to the mandible of *Lophopsittacus*.

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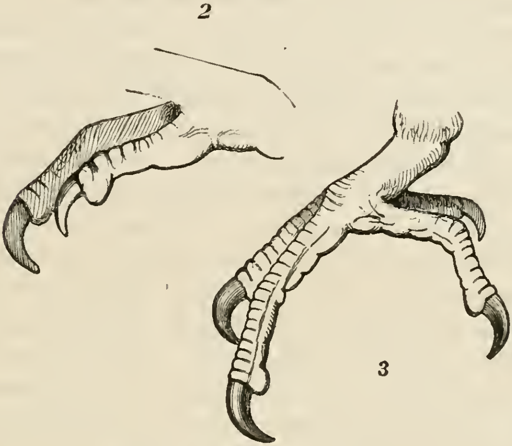
* The figures, both of D'Aubenton (Pl. Enl. 35) and Levaillant (Hist. Nat. Perr. ii. pl. 139 [1805]), show a red beak, narrow naked orbital ring, and feathered lores and cere. Hahn's figure does the same; but Wagler says the cere was uncovered (*cf.* Finsch, Pap. ii. p. 297).

† Wagler, who founded the genus *Coracopsis* (Abh. Math. Phys. Akad. Mun. i. p. 501, 1832), says, in his characters of the genus, "*Rostrum basi cerâ latâ nudâ cinctum ..... nares maximæ, patulæ ..... Pili in loris et prope nares.*"

‡ Ann. Sci. Nat. Zool. 5^{me} série, vol. vi. p. 105, t. ii. fig. 4, and t. iii. fig. 8, 1866.

Figs. 2 & 3.



Feet of *Mascarinus duboisi.*

From these considerations it is, I think, clear that the "Perroquet mascarin" is not related closely to *Coracopsis*, but must be referred to another genus. It is also clear that, of the two species, *C. mascarina* and *C. nigra*, for which Wagler (*l. s. c.*) founded the genus *Coracopsis*, the latter must be considered the type, as it alone agrees with several of the generic characters he gives as diagnostic*.

Lesson, in 1831 (Traité d'Orn. p. 188), founded a genus *Mascarinus*, characterized, amongst other things, by "*narines cachées par les plumes sur le bord du front*," in which he included, besides the present bird, two species of *Eclectus* and a *Tanygnathus*. *Mascarinus* is obviously a Latinized form of the epithet "*mascarin*;" and although an *Eclectus* is mentioned first in the list of species included, there can be little doubt that in reality Lesson had in view, when he made the genus, the bird at present under discussion, which must therefore be considered the type of *Mascarinus*.

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* It is, indeed, doubtful, on reading some parts of Wagler's diagnosis of the genus (*e. g.* "*Nares maximæ, patulæ* . . . . *Plumæ corvinæ*," &c.), whether he had, at that time, seen a specimen of *C. mascarina*.

As regards the specific name, at various times three names have been proposed for, or applied to, this bird—*mascarinus* of Brisson (Orn. iv. p. 315, 1760, "*Psittacus mascarinus*"), *madagascariensis* of Lesson (Traité, p. 189, 1831, "*Mascarinus madagascariensis*"), and *obscurus* of Linnæus (S. N. i. p. 140, 1766, "*Psittacus obscurus*"). If the bird is to be placed in a genus *Mascarinus*, the first of these specific names obviously cannot be applied. As regards the second, we already know from the Messrs. Newtons' excellent article on the Mascarene *Psittaci* (Ibis, 1876, p. 285) that there is no evidence to show that the "Mascarin" ever occurred elsewhere than in Bourbon, and hence "*madagascariensis*" is equally inapplicable. The *Psittacus obscurus* of Linnæus was founded on the description of a Parrot in captivity observed by Hasselquist during his travels in the east (Iter Pal. p. 236, 1757), and about which no subsequent information has ever been obtained. Hasselquist's description does not fit any species of Parrot at present known, and certainly not *Mascarinus*; and as Linnæus's diagnosis, "*Psittacus macrourus, fuscus, genis nudis rubris, vertice cinereo-nigrescente vario, cauda cinerea*" (S. N. i. p. 140, 1766), is equally inapplicable, the name "*obscurus*" had better be relegated to the region of mysteries, and entirely dropped*.

This being the case, there is no other course open than to use a new specific name; and, at Prof. Newton's suggestion, I propose that of *duboisi*, in memory of the French voyager Du Bois, who visited Madagascar and Bourbon in 1669–72, and described the various Parrots observed by him on the latter island, including one which is clearly the present bird (*cf.* Ibis, *l. c.* p. 286).

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* Linnæus, indeed, quotes *Psittacus mascarinus* of Brisson as a synonym of his *P. obscurus*; but the words "*capistrum nigrum*," after the diagnosis, as well as "*genis nudis rubris*," about which Hasselquist, in his very lengthy description, says nothing—so that they are probably only a paraphrase of Brisson's phrase "*oculorum ambitu nudo, coccineo*,"—suggest that his diagnosis was compounded by grafting on part of Brisson's diagnosis an abstract of Hasselquist's description.

As regards the systematic position of *Mascarinus duboisi*, the available material is so scanty that we shall probably never (for the bird is certainly extinct) be able to arrive at any satisfactory conclusion about it. In the form of the beak, the feathered nostrils and lores, the narrow orbital ring, and the structure of its feet, it more resembles the genera *Tanygnathus* and *Palæornis* than any of the African genera of Parrots now existing (*Psittacus, Coracopsis, Pœocephalus,* and *Agapornis*); and the forms of the wings and tail point to a similar conclusion. In its general coloration it is decidedly aberrant; but the fact of its beak being red is also a confirmation of its Palæornithine affinities, Prof. Garrod having shown (P. Z. S. 1874, p. 598) that none* but species with normal carotids (a group including *Palæornis, Tanygnathus,* &c., but not *Coracopsis, Psittacus,* and *Pœocephalus*) have their beaks so coloured. We already know that in both Mauritius and Rodriguez a very different genus† of Parrots existed in each island, along with a species of *Palæornis,* and therefore there is no *primâ facie* reason against a similar state of things having also been the case in Bourbon. On the other hand there is no evidence that *Coracopsis* ever occurred in a state of nature on any of these three islands.

To briefly recapitulate, then, I submit:—

(1) That the "Perroquet mascarin" of Brisson belongs to a genus, *Mascarinus,* distinct from *Coracopsis.*

(2) That, failing any older name that can with propriety be applied to it, it may be termed *Mascarinus duboisi.*

(3) That, so far as can be judged from the material that exists, *Mascarinus* is allied rather to such Palæornithine genera as *Palæornis* and *Tanygnathus* than to *Psittacus, Coracopsis,* or allied forms.

Cambridge, May 8, 1879.

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* *Pionus corallinus* is the only exception to the above rule that I have yet met with.

† *Lophopsittacus* and *Necropsittacus.*

XXVI.—*Remarks on the Genus* Sylvia *and on the Synonymy of the Species.* By Henry Seebohm.

The classification of birds will probably occupy the attention and tax the ingenuity of ornithologists for some years to come. This branch of zoology has undoubtedly made rapid strides during the last half century; but it is nevertheless only within the last generation that its study has emerged from the literary into the scientific stage. Much has been done to illustrate the anatomy and physiology of birds; their literature and synonymy have been unravelled from much of the confusion into which they had drifted; and their geographical distribution has been extensively, if not exhaustively, worked out; but the clue to their classification remains undiscovered. Of every new system of classification which has been proposed, one can only say that it is as unsatisfactory as its predecessors. One reason of this may be found in the attempt to make a linear arrangement of the families of birds. This is as impossible as to make a linear arrangement of the countries of Europe. A scientific arrangement of birds, classified according to their natural affinities, cannot be represented by a line, nor yet by a plane, but rather by an inverted cone, of which the base represents the existing avifauna of the world, and the underlying sections the birds of past geological ages. Nor can we assume that the birds at present existing represent a uniform flat plane. There are doubtless deep valleys, which, like the Marsupials of Australia, belong to lower sections, whilst the more rapidly developed families or genera may represent ranges of mountains. Some genera are islands, isolated by the extinction of their nearest allies; whilst some families represent inland countries, closely connected with many surrounding families.

The classification of birds thus resembles the fitting together of one of the puzzle-maps of our childhood, with this difference, that we have not only to fit the various pieces together, but we have first to get them into their right shapes. In all probability our knowledge of ornithology is not yet ripe for any classification to be successfully attempted. The ornithological student must patiently labour at shaping his pieces, at working his families into shape, and fitting them into the families nearest allied to them.

The genus *Sylvia* has by many ornithologists been placed at the head of the family Sylviidæ. Wallace, in his ingenious classification of the Passeres, founded on the comparative development of the bastard primary (Ibis, 1874, p. 409), places this family between the Turdidæ and the Timeliidæ. Professor Newton (Newton's ed. Yarr. Brit. B. i. p. 300) admits his inability to give any structural characters by which the Sylviidæ may be separated from the Turdidæ. Sharpe, in his modification of Sundevall's classification of this group of the Passeres (Cat. of Birds, iv. p. 7), proposes three families, Muscicapidæ, Turdidæ, and Timeliidæ. In the former he includes many species hitherto placed in the Sylviidæ. The Turdidæ he restricts to such species as have small bastard primaries and comparatively flat wings, whilst his family of Timeliidæ appears to be a general refuge for the destitute, including the round-winged Turdidæ (*Mimus* &c.), the round-winged Sylviidæ (*Drymœca* &c.), the Timeliidæ, as hitherto estricted, the Cinclidæ, the Troglodytidæ the Leiotrichidæ, the Phyllornithidæ, and the Pycnonotidæ.

I venture to suggest that the characters by which these three proposed families are separated, the width of the bill, the development of the rictal bristles, and the shape of the wing, are characters of comparatively modern date, and may form excellent lines of demarcation between subfamilies.

I propose to throw these three families as defined by Mr. Sharpe together, and to subdivide them into two large families, separated from each other by characters which, I venture to suggest, are much older (*i. e.* extending further back into remoter geological ages), and which, at the same time, will give to Prof. Newton the desired characters which separate the Thrushes from the Warblers.

I propose to include in the Turdidæ those species contained in the group under consideration which possess the following characters:—

The young in first plumage are spotted on the upper parts as well as on the underparts. This plumage is completely moulted in the first autumn before migration; so that young in first winter plumage differ very slightly from adults. Adult birds have *only one* complete moult in the year, in autumn, before migration. The spring plumage is obtained by casting the ends of the feathers. There is no complete moult in the spring, only such feathers being renewed as have been accidentally injured. So far as I have been able to ascertain, these peculiarities are always in this group correlated with a plain tarsus. This family will contain the genera *Turdus, Saxicola, Ruticilla,* a considerable portion of the Muscicapidæ, and probably several American genera.

The family which I propose to call the Sylviidæ is characterized as follows:—

The young in first plumage are unspotted on the upper parts (except in those cases where the adult birds are so also), and only in rare instances are traces of spots to be found on the breast. The adult birds moult *twice* in the year, in spring and autumn, both moults being complete. Birds in first plumage, having an opportunity of moulting in spring, do not require to moult in the first autumn, and only renew a few feathers then; consequently there is frequently a difference, principally in the colour of the underparts, between the the young and the adult in winter plumage. This family will contain the genera *Sylvia, Acrocephalus,* part of the Muscicapidæ, and probably the greater portion of Mr. Sharpe's Timeliidæ. So far as I have been able to ascertain, the characters I have mentioned as belonging to this family are always associated with a scutellated tarsus.

Difficult as is the assignment of its proper position in the classification of birds, the synonymy of many of the species of the genus *Sylvia* presents still greater difficulties.

The Barred Warbler stands undisputed as *Sylvia nisoria* (Bechst.), Naturg. Deutschl. iv. p. 530 (1795).

The synonymy of the Orphean Warbler is not perfectly clear. "La Fauvette" of Brisson, Buffon, and D'Aubenton is obviously the female Orphean Warbler. The male bird appears to have been unknown to Brisson; but Buffon treats it as a variety of the Blackcap. Gmelin founded his *Motacilla hortensis* on the "Fauvette" of Brisson and Buffon; and according to the strict letter of the law his name ought to be adopted. But inasmuch as Gmelin only defined the female, and that in terms insufficient to distinguish it from the immature Barred Warbler, and inasmuch as his name has been applied so universally to the Garden-Warbler for more than half a century, we are perfectly justified in ignoring it in favour of *Sylvia orphea* of Temminck (Man. d'Orn. p. 107, 1815), on the ground that the latter ornithologist was the first to "clearly define" the Orphean Warbler, and to give it a name which remains free from the taint of having been misapplied to other species.

Rüppell's Warbler stands undisputed as *Sylvia rueppelli* of Temminck (Pl. Col. iii. p. 245, 1823).

The specific name of the Whitethroat given by Linnæus having been adopted for the genus, it becomes necessary to discover the next earliest name which has been clearly defined. Professor Newton decides in favour of *rufa* of Boddaert; and this decision is accepted by Mr. Dresser. Boddaert's name is founded upon D'Aubenton's figure of "La Fauvette rousse" (Pl. Enl. 581. fig. 1). But it is impossible to accept this figure as a clear definition of a Whitethroat, a common and perfectly well-known bird, fairly figured (Pl. Enl. 579. fig. 3) under its familiar name of "La Fauvette grise ou la Grisette." It is equally impossible to determine what bird stood as model for D'Aubenton's plate of "La Fauvette rousse." I venture to suggest that the artist "evolved" the figure "out of the depths of his moral consciousness," and coloured it to agree with Buffon's description of "La petite Fauvette rousse." It is impossible to identify either Brisson's "Fauvette rousse" or Buffon's "petite Fauvette rousse" with any known bird; but we may confidently assert that neither description can be accepted as a clear definition of a Whitethroat. In my opinion Boddaert's name falls to the ground for want of a clear definition. There is no evidence to prove that Boddaert attempted to define any species; and probably no one would have been more astonished than he himself to hear that his name of *Motacilla rufa* was applied to "la Grisette." Boddaert's unambitious object was to apply the binomial system of nomenclature introduced by Linnæus to the birds figured in the 'Planches Enluminées' of D'Aubenton, which Buffon and Montbeillard had neglected to do. Referring to the work of the latter gentleman, he finds that the "Fauvette rousse" is the *Curruca rufa* of Brisson; and turning over his 'Systema Naturæ," he finds that all the Fauvettes are included by Linnæus in his genus *Motacilla*; so he modestly names "La Fauvette rousse" of D'Aubenton *Motacilla rufa*, instead of *Curruca rufa*. But had there been no doubt whatever attaching to Boddaert's name, it must have been rejected on other grounds. The object of nomenclature being to attain absolute scientific precision, it is obvious that the name of *Sylvia rufa* having been in general use for more than half a century for the Chiffchaff, could under no circumstances be transferred to any other species of the genus *Sylvia*. To do so would be to violate the spirit of the British-Association rules in the endeavour to follow the letter of the law too blindly.

It is unfortunate that the familiar name *Sylvia cinerea*, inappropriate as it is, cannot stand; but Latham himself had previously (in 1787) given the appropriate name *Sylvia communis* (Gen. Syn. Suppl. i. p. 287) to the Whitethroat. The species is "clearly defined" beyond all cavil; and ornithologists have only their own neglect to blame if the name appears a novel one to them.

The Blackcap stands undisputed as *Sylvia atricapilla* (Linn., Syst. Nat. i. 332, 1766).

It is unfortunate that the Garden-Warbler cannot retain its familiar name of *Sylvia hortensis*. We have already seen that Gmelin's name applies to the female Orphean Warbler. It might probably be possible to argue that Gmelin confounded the male Orphean Warbler with the Blackcap and the female Orphean Warbler with the Garden-Warbler, so that his name might stand by stretching the law a little as "*partim*;" but all discussion of the subject is rendered useless by the fact that Gmelin's name is superseded by Latham's *Sylvia simplex* (Gen.

Syn. Suppl. i. p. 287, 1787), of the clear definition of which there cannot be any doubt. The adoption of Latham's name would be a very simple solution of the difficulty, were it not that there exist two earlier names which have a claim upon our attention. The first of these is the *Motacilla borin* of Boddaert. This name was founded upon D'Aubenton's figure of "la petite Fauvette" in the 'Planches Enluminées.' There seems to be little doubt that Brisson's "petite Fauvette" is the Garden-Warbler. Buffon's description of the bird also agrees fairly well with this species; but he confuses it with two other birds. A local name for the Whitethroat is "la Passerine," and for the Spectacled Warbler (which is an almost exact miniature of the Whitethroat) "la Passerinette." Buffon calls his bird "la Passerinette ou petite Fauvette." The other species which Buffon apparently mixes up with the Garden-Warbler is the Chiffchaff, the note and nest of which are erroneously ascribed to "la Passerinette." I submit that D'Aubenton's figure cannot be accepted as a clear definition of the Garden-Warbler. I do not deny that it may have been drawn from a stuffed specimen of this species; but the position does not admit of the structural characters being seen, and the coloration is faulty in the extreme, so much so that Dresser, in his 'Birds of Europe,' identified it with the Lesser Whitethroat. But I am not sure that the name cannot be rejected on its merits. The name *borin* does not appear to be a classical name at all. I take it to be simply the local name of the bird; and to apply it as a scientific name would probably appear as absurd to the ornithologists of "le pays de Gênes" as the names *Pica magpie* or *Sylvia blackcap* would to us.

The other name is the *Motacilla salicaria* of Linnæus. This name has been adopted by Prof. Newton and accepted by Mr. Dresser. I am sorry to be obliged to differ from our greatest authority on ornithological nomenclature, and would willingly have indorsed his name if I had not been convinced that others would have repudiated it, and that by so doing I should only be prolonging the agonies of its death. There is considerable circumstantial evidence that Linnæus intended to describe the Garden-Warbler as *Motacilla salicaria*. Nevertheless he not only failed to define the species clearly, but described it inaccurately as having "supercilia alba" and "pedes fulvi," and in his 'Fauna Suecica' (where the name appears for the first time) refers to Albin (Nat. Hist. B. iii. p. 56, pl. 60). The bird described by Albin under the name of Sedge-bird is undoubtedly an *Acrocephalus*, any Swedish species of which would have pale supercilia and pale legs. It is appropriately figured perched upon a willow-bush, which probably suggested to Linnæus the name of *salicaria*, a most inappropriate one for the Garden-Warbler. Inasmuch as the Garden-Warbler has no superciliary stripe, and the colour of its legs and feet are bluish grey, I submit that Linnæus has no claim whatever to have clearly defined this species. An equally fatal objection to the adoption of this name is that the term *salicaria* of Linnæus has been, in consequence of the faulty description alluded to, transferred from one bird to another until it has ceased to have a definite meaning. *Motacilla salicaria*, Linn., apud Nilsson et Newton, is the Garden-Warbler; *Motacilla salicaria*, Linn., apud Bechstein (Orn. Taschenb.) et Meyer et Wolf, is the Aquatic Warbler; *Motacilla salicaria*, Linn., apud Latham et Fleming, is the Sedge-Warbler; *Motacilla salicaria*, Linn., apud Brehm, is the Marsh-Warbler; *Motacilla salicaria*, Linn., apud Bechstein (Naturg. Deutschl.), is the Reed-Warbler; *Motacilla salicaria*, Linn., apud Pallas, is the Booted Warbler; and *Motacilla salicaria*, Linn., apud Heuglin et Sharpe, is the Icterine Warbler. So completely has the term *salicaria* been identified with the Reed-Warbler, that Selby adopted it for the genus, in which he has been extensively followed by both British and continental ornithologists. Under these circumstances it seems to me that the spirit of the British-Association rules will be best carried out by calling the Garden-Warbler *Sylvia simplex*, Lath.

The Lesser Whitethroat appears to be unquestionably entitled to stand as *Sylvia curruca* (Linn.) (Syst. Nat. i. p. 329). I take it to be "la Fauvette babillarde" of Brisson, Buffon, and D'Aubenton. Three forms of this bird appear to be entitled to rank as subspecies:—*affinis*, Blyth (J. A. S. Beng.

xiv. p. 564), which has a slightly more rounded wing; *althea*, Hume (Stray Feath. vii. p. 60), a large form, which I have not yet seen; and *minula*[*], Hume (Stray Feath. i. p. 198), a desert-form, of a pale isabelline colour.

The Spectacled Warbler stands as *Sylvia conspicillata*, Temm. Man. d'Orn. i. p. 210 (1820), ex Marmora, MS.

The Desert-Warbler stands as *Sylvia nana*, Ehr. Symb. Phys. Aves, fol. *cc* (1829).

The Subalpine Warbler stands as *Sylvia subalpina*, Temm. Man. d'Orn. i. p. 214 (1820), ex Bonelli, MS.

Blanford's Warbler, *Sylvia blanfordi*, Seebohm, P. Z. S. 1878, p. 979, appears to be a good species, intermediate between *S. curruca* and *S. rubescens* and *S. melanocephala*, differing from the former in having a darker head, a more rounded wing, and a longer tail, and from the two latter in having darker legs and feet, a more rounded wing, and darker outside tail-feathers.

The Sardinian Warbler stands as *Sylvia melanocephala* (Gmel.) (Syst. Nat. i. p. 970, 1788, ex Cetti).

Marmora's Warbler must, I think, stand as *Sylvia sarda*, Temm. Man. d'Orn. i. p. 204 (1820), ex Marm. MS.[†] It has a doubtful claim to bear the name of *Sylvia moschita*, Gmel. (Syst. Nat. i. p. 970). Gmelin takes his description from Cetti's Ucc. di Sard. p. 218 (1776). After describing the bird upon which Gmelin founded his *Motacilla melanocephala*, Cetti proceeds, "Ad un uccelletto lungo non più di 5 pollici, di color piombino e incappellato anch' esso una d'un cappellino rosseggiante, danno i Sardi il nome di *moschita*, o come altri dicono *noschita*."

There can be no question that this is intended to apply to the bird hitherto known as *Sylvia sarda*. There can scarcely be a doubt that Gmelin's name has the priority of that of

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[*] Probably a misprint for "*minuta*," there being no such Latin word as "minula."—Edd.

[†] Temminck calls this bird "*Sylvia sarda*, Marmora," and refers to an article by Marmora in the "Annales de l'Académie de Turin, 28 Août, 1819." But at the close of Marmora's article on *Sylvia cetti* (Mem. Acc. Sci. Torino, xxv. p. 254) Bonelli adds a note that the paper thus quoted by Temminck was never published.

Temminck; but since this bird has been in undisturbed possession of the latter for upwards of half a century, we may fairly ignore the former on the ground that Gmelin's description does not clearly define the species. His name does not deserve to stand, inasmuch as he obviously never saw the bird, or he would scarcely have copied Cetti's error in ascribing the rufous tint to the head instead of to the flanks.

Tristram's Warbler, *Sylvia deserticola*, Tristram (Ibis, 1859, p. 58), is an excellent species, which has most unaccountably been confused with *Sylvia nana*. It is a much darker-coloured bird, with a more rounded wing and a much longer tail. It is nearer to *S. conspicillata*, but can always be distinguished by its more rounded wing, longer tail, and darker chin and throat.

Another of Tristram's species, Bowman's Warbler, appears to me to be a good one. It differs from *S. melanocephala* in having a shorter tail, and in being, in both sexes, but especially in the female, paler in colour. Tristram named it *Sylvia bowmanni* (Ibis, 1867, p. 85); and Blanford subsequently described it as *Sylvia rubescens* (Ibis, 1874, p. 77); but both these names are superseded by Cabanis, who named it *Melizophilus nigricapillus* (Mus. Hein. i. p. 35, 1850). Cabanis described his species from Hemprich and Ehrenberg's types in the Berlin Museum; and if the existence of a type in a public museum is to be held as legally supplementing an insufficient description, which I take to be in accordance with ornithological judge's law, Bowman's Warbler must stand as *Sylvia momus* (Ehr. Symb. Phys. Av. i. fol. *bb*, 1829).

The Dartford Warbler must, I presume, stand as *Sylvia undata* (Bodd.). Boddaert's name is accompanied by no description, but is published as the Latin name of "le Pitte-chou de Provence," figured by D'Aubenton in the 'Planches Enluminées' (Bodd. Table Pl. Enl. p. 40, 1783). The figure is sufficiently good to leave no reasonable doubt as to the species intended to be designated; and Boddaert's name may therefore be held to have been, in this instance, "clearly defined." Under all circumstances, *Sylvia dartfordensis*, Lath., would take precedence of *Motacilla provincialis*, Gmel. The former name appears in Latham's list of British birds appended to the supplement of his 'General Synopsis.' This most important list, with references to full descriptions, has, most unaccountably been ignored by all writers on ornithological nomenclature.

The Palestine Warbler will doubtless stand as *Sylvia melanothorax*, Tristram (Ibis, 1872, p. 296). I have only seen skins obtained by Canon Tristram in Palestine and by Lord Lilford in Cyprus. The immature birds come so near Rüppell's figure and Heuglin's description of *Sylvia lugens* (Rüpp. Neue Wirb. p. 113, pt. 42, 1835), that I should have hesitated to consider the two species distinct if I had not had the opportunity of examining the type of *Curruca lugens* in the Senckenberg Museum at Frankfort. Rüppell's bird has far too large a first primary to be admitted into the genus *Sylvia* at all, and is certainly not *S. melanothorax*.

I am unable to find any characters to entitle *Melizophilus* to stand as a genus. All the species which I have enumerated have the tail shorter than the wing, except the following:—

S. blanfordi has the tail $\frac{1}{40}$ longer than the wing.

S. deserticola has the tail $\frac{1}{20}$ longer than the wing.

S. melanocephala has the tail also $\frac{1}{20}$ longer than the wing.

S. sarda has the tail $\frac{1}{20}$ longer than the wing.

S. undata has the tail varying from $\frac{1}{9}$ to $\frac{1}{5}$ longer than the wing.

I have much pleasure in doing tardy justice to the discoveries of a distinguished field-naturalist by rescuing two of his new species from the oblivion in which cabinet-naturalists had buried them; but I venture to suggest that, if my friend Canon Tristram had described his species in honest English, instead of in ornithological Latin, they could scarcely have been overlooked so long. The attempt to give them a cosmopolitan fame has resulted in their absolute seclusion for half a lifetime.

XXVII. *Remarks on the Second Part of Mr. Ramsay's 'Contributions to the Zoology of New Guinea.'* By T. Salvadori, C.M.Z.S.

Mr. Ramsay has been so kind as to send me an early copy of his "Contributions to the Zoology of New Guinea," containing a list of the Mammals and Birds obtained during

Mr. Goldie's second expedition to New Guinea, with descriptions of some new birds recently forwarded to the Australian Museum by Mr. Kendel Broadbent, from the same localities.

Mr. Ramsay's paper, published in the 'Proceedings of the Linnean Society of New South Wales,' vol. iii. pp. 241–305, 1879, is an important one, as the materials at his command were very extensive; and I have thought that it would be interesting to the readers of 'The Ibis' to have some remarks on the part of the paper relating to the birds, especially as there are not a few species described as new, on which, as well as on others, I think I am able to make some apposite criticisms.

Mr. Ramsay's paper treats of not less than 214 species of birds, which were represented by about 2500 specimens. These were mostly collected along the southern coast of the eastern peninsula of New Guinea; but some were from Deboyne Island and Teste Island in the Louisiade archipelago.

ACCIPITRES.

Mr. Ramsay mentions 11 species of this order; the following require some notice.

BAZA REINWARDTI, Ramsay, *l. c.* p. 246.

Mr. Ramsay, after having mentioned a specimen from the Laloki river, goes on to say that "it is most certainly different from the New-Ireland species, which Dr. Sclater places under the same name (P. Z. S. 1877, p. 109)." I have seen the specimen mentioned by Dr. Sclater; and I noticed that it differed from twenty specimens from New Guinea, Waigiou, Salwatty, Amboyna, &c. in the under wing-coverts being white without the *buff* tinge, which was constant, although more or less intense, in those twenty specimens. As to the other differences in the tail and in the wing, mentioned by Mr. Ramsay, they are dependent on age.

MACHÆRORHAMPHUS ALCINUS, Ramsay, *l. c.* p. 247.

A fine pair is mentioned by Mr. Ramsay. At present, with the specimen previously noticed by Mr. Sharpe (Journ.

Proc. Linn. Soc. xiii. p. 308), we know of three specimens from the south of New Guinea of this rare bird, which is scattered over a very extensive area.

Astur sharpei, Ramsay, *l. c.* pp. 173, 248.

I do not think that this species will stand. In my 'Prodromus Ornithologiæ Papuanæ et Moluccarum,' pt. v. *Accipitres*, p. 38, sp. 28 (note), which Mr. Ramsay seems to have overlooked, I have stated that, having compared the specimens from the south of New Guinea assigned by me to *Urospizias torquatus* (Temm.) with the typical specimen from Timor, and with the type specimen of *Nisus australis*, Less., from Australia (*Peron*), I found them to agree in every respect. I think also that *Astur cruentus*, Gould., is the same; at least the figure in the 'Birds of Australia' (vol. i. pl. 18) does not show any difference.

Striges.

Mr. Ramsay mentions four species of this group, two of which he describes as new.

Ninox dimorpha, Salvad.; Ramsay, *l. c.* p. 248.

To this species, of which the typical specimen is still unique, Mr. Ramsay assigns a fledgeling; it would be important to compare it with the adult described by me.

Mr. Ramsay takes the opportunity to mention that his *Ninox novæ-britanniæ* is not the same as *N. odiosa*, Sclat.; and I think that he is right; but I question whether it is not the same as *N. variegata*. The difference mentioned by Mr. Ramsay, in the *front, face, and chin* being *not whitish* in *N. novæ-britanniæ*, does not seem to me conclusive, as in the typical specimen of *N. variegata*, examined by me, those parts are also not exactly whitish: the lores, the forehead, and the chin are whitish; but the face is rufous, growing paler towards the anterior part.

Ninox albomaculata, Ramsay, sp. nov., *l. c.* p. 249.

The description of this bird agrees with that of *Ninox assimilis*, Salvad. et D'Alb.

NINOX UNDULATA, Ramsay, sp. nov., *ibid.*

It seems to me that the description of *N. undulata* applies well to specimens of *N. humeralis* (Hombr. et Jacq.); if I remember rightly, Canon Tristram, to whom I showed in London a specimen of *N. humeralis*, told me that he had received the same bird from Port Moresby.

PSITTACI.

Ten species of Parrots are mentioned by Mr. Ramsay.

NASITERNA PUSILLA, Ramsay, *l. c.* ii. p. 105, iii. p. 251.

I think it will be necessary to compare this species with specimens of my *N. beccarii*.

APROSMICTUS CHLOROPTERUS, Ramsay, nov. sp., *l. c.* p. 251.

I consider this a good species, allied to *Aprosmictus chloropterus*, D'Alb. et Salvad., from the Fly River. Mr. Sharpe has described the same bird under the name *Aprosmictus broadbenti* ('Ann. & Mag. Nat. Hist.' April 1879).

LORIUS HYPŒNOCHROUS, Gray, apud Ramsay, *l. c.* p. 254.

Lorius hypœnochrous, var. *guglielmi*, *l. c.* p. 106 (1878).

This is *Lorius erythrothorax*, Salvad. Ann. Mus. Civ. Gen. x. p. 32, xiv. p. 39, a species perfectly distinct from *L. hypœnochrous*.

CHALCOPSITTA[CUS] CHLOROPTERUS, Salvad. et Ramsay, *l. c.* p. 254.

I have already given up this species (Ann. Mus. Civ. Gen. xiv. p. 37), which was founded rather on an individual variety than on a young specimen.

CUCULIDÆ.

Nine species are included in Mr. Ramsay's list.

LAMPROCOCCYX MINUTILLUS, Gould, Ramsay, *l. c.* p. 255.

I should say, from Ramsay's description, that the specimens mentioned by him under this head must belong to *L. russata*, Gould, of which I have seen many specimens from Hall Bay, exactly like others from Cape York. I have united *L. russata* to *L. pœcilurus* (Gray) (Prodr. Orn. Pap. et Molucc. pt. vi. *Cuculidæ*, sp. 14).

Lamprococcyx lucidus (Gm.), Ramsay, *l. c.* p. 256.

I suspect that the bird so named is *L. plagosus* (Lath.), a different species from *L. lucidus* (Gm.), which I only know from New Zealand.

Lamprococcyx meyeri, Salvad., Ramsay, *ibid.*

I only knew this species from the Arfak Mountains. It would be interesting to compare the southern specimens with the northern ones.

Cacomantis assimilis, Gray, Ramsay, *ibid.*

This cannot be Gray's species, which never has the underparts rich castaneous red or rufous. Mr. Ramsay does not think that the specimens doubtfully referred by him to *C. assimilis* belong to *C. castaneiventris*—to which species I have assigned specimens from Naiabui in the south (Prodr. *Cuculidæ,* sp. 5), from the Arfak Mountains, from Salwatty, and from the Aru Islands, which seemed to me the same as the Australian ones.

Cacomantis dumetorum, Gould, Ramsay, *l. c.* p. 257.

This, in my opinion, is not different from *C. tymbonomus* (S. Müll.).

Centropus spilopterus, Gray, apud Ramsay, *l. c.* p. 258.

Mr. Ramsay, following Mr. Sharpe (Journ. Proc. Linn. Soc. xiii. pp. 81, 310, 491), now assigus to *C. spilopterus,* Gray, the bird which on previous occasions has been described by me under the name of *Polophilus nigricans,* Salvad., Ann. Mus. Civ. Gen. ix. p. 17 (1876), and which has been assigned by Mr. Ramsay to *Centropus melanurus,* Gould (Proc. Linn. Soc. N. S. W. i. p. 394). I have already stated (Prodr. vi. *Cuculidæ,* sp. 36) that Mr. Sharpe was in error; and I take this opportunity to explain that his mistake arose from the fact of his not having fully adult specimens of *C. spilopterus* in the British Museum. *Polophilus spilopterus* (Gray), (very badly named) in the adult state is *perfectly uniform* greenish black; and it is not such a typical *Polophilus* as my *P. nigricans,* which, when fully adult, has the wings and the tail marked with light bars and freckled with rufous.

In *P. macrurus*, Gould, from Cape York (called *melanurus*, Gould, by Mr. Ramsay), the wings and the tail-feathers are not blackish, as in my *P. nigricans*, but reddish banded with black.

ALCEDINIDÆ.

Of the ten species mentioned by Mr. Ramsay the following deserve notice:—

ALCYONE AFFINIS, Gray, apud Ramsay, *l. c.* p. 258.

This name belongs to the species from the Halmahera group, which is sufficiently distinct from that of New Guinea. The latter ought to stand as *A. lessoni*, Cass.

TANYSIPTERA SALVADORIANA, Ramsay, sp. nov., *l. c.* p. 259.

Mr. Ramsay has done me the honour of naming after me the *Tanysiptera* from the south of New Guinea, allied to *T. sylvia* from Cape York. I have already pointed out (Ann. Mus. Civ. Gen. viii. p. 815) the chief differences; but my specimens were not in very good plumage; so I did not venture to describe them as belonging to a new species. But no doubt Mr. Ramsay, who most likely has specimens in good condition, has been able to judge better than I.

HALCYON ALBICILLA, Cuv., apud Ramsay, *l. c.* p. 261.

I have examined Cuvier's type; and I am quite convinced that the Marianne-Islands bird is a peculiar species, and that the bird from New Guinea and the surrounding islands ought to stand as *Sauropatis saurophaga* (Gould).

DACELO LEACHI, var., Ramsay, *l. c.* p. 261.

This is *D. intermedius*, Salvad. et D'Alb., which I still think sufficiently distinct from any of the Australian forms. At any rate the New-Guinea bird is more like the bird from Cape York (*D. cervinus*, Gould) than that of Queensland (*D. leachi*, Vig. et Horsf.).

PODARGIDÆ.

PODARGUS MARMORATUS, Gould, Ramsay, *l. c.* p. 264.

The only specimen described by Mr. Ramsay is, according to me, *P. ocellatus*, Q. et G., which varies a good deal, and with which I think that *P. marmoratus* is identical.

CYPSELIDÆ.

COLLOCALIA SPODIOPYGIA, Peale, Ramsay, *l. c.* p. 265.

It would have been interesting to know if the specimens which are now assigned to this species by Mr. Ramsay are not the same as those described by him as *Cypselus terræreginæ,* P. Z. S. 1874, p. 601.

MUSCICAPIDÆ.

RHIPIDURA CASTANEOTHORAX, Ramsay, sp. nov., *l. c.* p. 270.

The description of this species applies in every respect to a specimen of *R. hyperythra,* Gray (= *rufiventris,* Müll.), from Northern New Guinea.

RHIPIDURA AMBUSTA, Ramsay, sp. nov., *ibid.*

Mr. Ramsay does not mention any species to which his *R. ambusta* is allied. It seems to me that if it is not the same as *R. threnothorax,* Müll., it must be very nearly allied to it.

There is another *Rhipidura* lately described by Mr. Ramsay, *R. episcopalis* (Proc. Linn. Soc. N. I. W. ii. p. 371), which, I think, has been rightly identified with *R. leucothorax,* Salvad., by Mr. Sharpe (Cat. B. iv. p. 474).

EOPSALTRIA PLACENS, Ramsay, sp. nov., *l. c.* p. 372.

This is a good species, which has been described quite recently also by Mr. Sharpe as *Pœcilodryas flavicincta* (Ann. & Mag. Nat. Hist. April 1879). As it belongs to the group of *P. capito* (Gould) and *P. leucops* (Salvad.), it seems that its proper place is in the genus *Pœcilodryas.*

MICRŒCA ALBOFRONTATA, Ramsay, sp. nov., *l. c.* p. 304.

The description applies in every respect to my *Monachella saxicolina* (= *Muscicapa muelleriana,* Schleg.).

GERYGONE INCONSPICUA, Ramsay, *l. c.* pp. 116, 273.

I should say that this species is nearly allied to *G. chrysogaster,* Gray, if not the same.

MALURIDÆ.

? TODOPSIS CYANOCEPHALA, Q. et G., apud Ramsay, *l. c.* p. 274.

The southern bird is different from the northern, and it is very much like the Aru-Island species, *T. bonapartii*, Gray, to which it has been assigned by Mr. Sharpe and myself.

DICÆIDÆ.

MELANOCHARIS, sp., Ramsay, *l. c.* p. 276.

Mr. Ramsay suspects that a specimen from the Goldie river may be the same as my *Melanocharis unicolor* from Jobi. This appears to me hardly possible. If really different, Mr. Ramsay proposes for it the name of *M. bicolor*.

PITTIDÆ.

PITTA MACKLOTI, Temm., Ramsay, *l. c.* p. 277.

To this species, I think, must be assigned also *Pitta novæ-hyberniæ*, Ramsay (Proc. Linn. Soc. N. S. W. iii. p. 73), from New Ireland and from the Duke-of-York Islands. I have seen a specimen from New Britain, mentioned by Mr. Sclater (P. Z. S. 1877, p. 99), which positively was not to be distinguished from others from New Guinea &c.

EUPETIDÆ.

EUPETES GOLDIEI, Ramsay, sp. nov., *l. c.* p. 303.

It appears to me that *E. goldiei* is the same as *Eupetes ajax*, Temm., which would more properly be placed in the genus *Cinclosoma*. D'Albertis has lately found this bird along the Fly River (Ann. Mus. Civ. Gen. xiv. p. 85).

LANIIDÆ.

PACHYCEPHALA COLLARIS, Ramsay, *l. c.* pp. 74, 281.

From Teste Island; unknown to me.

PACHYCEPHALA FULIGINATA, Ramsay, *l. c.* pp. 74, 282.

I am not quite convinced that this bird is really different from *P. leucogastra*, Salvad. et D'Alb.

PACHYCEPHALA BRUNNEA (Ramsay), *op. cit.* i. p. 391; iii. p. 282.

From the Laloki river. Unknown to me.

CAMPOPHAGIDÆ.

GRAUCALUS ANGUSTIFRONS, Sharpe, Ramsay, *l. c.* p. 283.

Even Mr. Sharpe (Mitth. Zool. Mus. Dresd. i. 3, p. 366) now agrees with me in considering his *G. angustifrons* not different from *G. hypoleucus*, Gould.

EDOLIOSOMA, sp., Ramsay, *l. c.* p. 284.

The birds alluded to by Mr. Ramsay are females and young males of *E. melas*.

CAMPEPHAGA BOYERI (Q. et G.), apud Ramsay, *l. c.* p. 284.

The southern bird so named by Mr. Ramsay belongs to *Graucalus axillaris*, lately discriminated by Mr. Sharpe. The differences from the northern *G. boyeri* were first pointed out by me (Ann. Mus. Civ. Gen. ix. p. 26).

MELIPHAGIDÆ.

STIGMATOPS ALBO-AURICULARIS, Ramsay, *l. c.* pp. 75, 285.

Unknown to me.

PTILOTIS GERMANA, Ramsay, *l. c.* pp. 2, 285.

Unknown to me.

GLICIPHILA SUBFASCIATA, Ramsay, *l. c.* p. 286.

I have satisfied myself that this species is really the same as *G. modesta*, Gray.

ZOSTEROPIDÆ.

ZOSTEROPS LONGIROSTRIS, Ramsay, sp. nov., *l. c.* p. 288.

From Heath Island. Unknown to me.

COLUMBÆ.

PTILOPUS PERLATUS (Temm.), apud Ramsay, *l. c.* p. 290.

This is the southern form, *P. zonurus*, Salvad.

PTILOPUS RIVOLII (Prevost), Ramsay, *l. c.* p. 290.

I am not quite convinced that Mr. Ramsay has rightly identified the birds from Deboyne Island, Teste Island, Cloudy Bay, Blunden River, &c.

Deboyne Island and Teste Island belong to the Louisiade archipelago, as does Duchateau Island, where the typical specimen of *P. strophium*, Gould, was killed; this has no rose-purple on the chest, although it looked to me fully adult. If all the specimens from Deboyne Island and Teste Island are without any red on the underparts, I should say that they belong to *P. strophium*. As to the specimens from Cloudy

Bay (on the south coast of the east end of New Guinea) and those from Blunden River (not yet marked in the maps seen by me), I should say that if, when *fully adult*, they have the middle of the chest red, they belong either to true *P. rivolii* or to an allied new species. Where, I think, Mr. Ramsay is positively wrong is in trying to unite *P. rivolii*, *P. strophium*, and *P. prasinorrhous* as one and the same species.

MEGALOPREPIA POLIURA, Salvad., Ramsay, *l. c.* p. 291.

I am glad to see that Mr. Ramsay, accepting my name for the southern form, agrees with me in considering it distinct. I should like Mr. Ramsay to tell us if the pair of *Megaloprepia puella*, previously mentioned by him (P. Z. S. 1876, p. 115) as from Cape York, really was from that locality, or if it really belonged to the species with the tail *below black*.

CARPOPHAGA VAN-WYCKI, Cass., Ramsay, *l. c.* p. 292.

This species was not yet known from such localities as the south-east end of New Guinea, Deboyne Island, and Bramble Haven. Mr. Ramsay states that he finds no differences between specimens from these localities and those from the Duke-of-York Island.

I suspect that *C. pistrinaria*, Bp., from the Solomon Islands, is the same species.

CARPOPHAGA PACIFICA (Gm.), Ramsay, *l. c.* p. 292.

From Teste Island, South-east Cape, &c. Teste Island belongs to the Louisiade archipelago, where this Pigeon was already found by MacGillivray during the voyage of the 'Rattlesnake' (*cf.* Salvad., Mon. del sottogen. *Globicera*, p. 8). South-east Cape is very near the Louisiade archipelago; but there must be many more places in New Guinea, between South-east Cape and Taraway Island on the northern coast, where this species will also be found.

MYRISTICIVORA SPILORRHOA, Gray, Ramsay, *l. c.* p. 292.

Mr. Ramsay says, "I believe the species found on New Ireland and Duke-of-York islands to be *M. luctuosa* (or *M. bicolor*); however it is certainly not the same as that from

Australia. Against this last statement we have Dr. Sclater's authority, who (P. Z. S. 1877, p. 109) assigns one skin received from the Rev. Mr. Brown to *M. spilorrhoa.* As to the specimens from New Ireland and Duke-of-York Island being *M. luctuosa,* certainly this cannot be the case, as that species is strictly confined to Celebes; neither am I inclined to believe that it is *M. bicolor.*

MACROPYGIA AMBOINENSIS (Linn.), apud Ramsay, *l. c.* p. 203.

The birds thus named by Mr. Ramsay must be *M. doreya,* Bp., or *M. carteretia,* Bp., and not *M. amboinensis* (Linn.), which is peculiar to the Amboyna group.

GRALLÆ.

PARRA NOVÆ-GUINEÆ, Ramsay, sp. nov., *l. c.* p. 298.

I have not seen the New-Guinea bird. Mr. Ramsay does not point out in what respect it differs from the Australian *Parra gallinacea.*

XXVIII. *Report on the Ornithological Acquisitions of the British Museum in* 1878.

IN the Annual Report on the British Museum presented to the House of Commons* we find among the "most important acquisitions" in the Zoological Department the following specially noticed :—

1. A selected series from the collection of African birds, formed by, and formerly in the possession of, R. B. Sharpe, Esq. This series includes those specimens only which were desiderata in the British Museum, and consists of 3444 named specimens, and 54 types. This purchase has been spread over a period of five years.

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* Account "of the Income and Expenditure of the British Museum (Special Trust Funds), for the Financial Year ended the 31st day of March, 1879:"

And, "Return of the number of Persons admitted to visit the Museum in each Year from 1873 to 1878, both Years inclusive; together with a Statement of the Progress made in the Arrangement of the Collections, and an Account of Objects added to them in the year 1878."

2. A collection of 6650 eggs of birds, formed and presented by Messrs. F. Du Cane Godman and O. Salvin. It contains the materials collected by them in Europe, North Africa, and Central America, supplemented by specimens collected by the most trustworthy collectors, such as the late Mr. J. Wolley. All the specimens being well authenticated, and in a perfect state of preservation, this collection is one of the most valuable of its kind in existence.

3. Two valuable additions to the series of Groups of British Birds have been made by Theodore Walker, Esq. They illustrate the nesting-habits of the Skylark and the Great Crested Grebe, the parent birds and the nest being mounted with the natural surroundings.

The following is the general report upon the acquisitions in the class of Birds :—

The total number of acquisitions (exclusive of the collection of Birds' Eggs mentioned above) amounts to 2919, of which 159 were species entirely new to the collection, and 27 typical specimens. The following accessions may be specially mentioned :—

The typical series of the birds collected by the naturalists of the expedition sent by the Geographical Society of Bremen to Western Siberia and Turkestan ; the number of specimens amounts to 205 ; purchased.

Thirteen rare Flycatchers from Darjiling, among them five species new to the collection ; presented by L. Mandelli, Esq.

A collection of 308 specimens from Cochin China and Camboja, containing a new species of *Campophaga*, as well as numerous others new to the British Museum ; presented by M. E. Pierre, Director of the Botanic Gardens, Saigon.

The type of a new species of *Indicator* from Malacca (*I. malayanus*), purchased.

Seventy-eight specimens from Ceylon ; presented by Captain Vincent Legge, R.A.

The type of a new species of Scops Owl (*Scops minuta*), from Ceylon ; presented by G. Bligh, Esq.

A collection of 121 specimens made by the late Mr. E. C. Buxton in Western Java ; presented by Francis Nicholson, Esq.

Thirty-four Flycatchers from the Malayan archipelago and New Guinea, representing seventeen species previously desiderata to the collection; presented by the Leyden Museum.

Eleven Flycatchers and Cuckoo Shrikes obtained by Dr. A. B. Meyer during his travels in the Moluccas and New Guinea; purchased.

A series of the Hornbills of the Lạ́was River, N.W. Borneo; collected by H.E. Governor Ussher, C.M.G.

Seventy-five specimens from Sarawak, collected by Mr. H. Everett, among them the type of *Ixidia paroticalis*; purchased.

Forty-seven specimens from the Arfak Mountains, N.W. New Guinea, collected by M. Léon Laglaize; among them thirteen specimens new to the collection; purchased.

Specimens of a race of the Domestic Fowl from the Fiji Islands, which had reverted to the wild state; presented by E. L. Layard, Esq., C.M.G.

Thirty-eight specimens from the Pelew Islands, among them 12 species new to the collection; purchased.

Fourteen Flycatchers from various South-Sea Islands, new to the collection; purchased of the Godeffroy Museum.

The collection of birds and their eggs made by the Rev. S. J. Whitmee in the Samoa, Ellice, Fiji, and Loyalty Islands; purchased.

Eight specimens from the Azores, representing four species new to the collection; presented by F. Du Cane Godman, Esq.

The remainder of the collection of African birds formed by, and formerly in the possession of, R. B. Sharpe, Esq.; it consists of 900 specimens; purchased.

A selected series from the collections made by Dr. Lucan and M. Petit in the Congo district, and containing six new species; purchased.

Two specimens of a Plumed Guinea-fowl (*Numida eduardi*), from the coast of Mozambique; presented by Lord Lilford.

A second consignment of the birds of Uruguay, consisting of 108 specimens; sent by A. Peel, Esq.; purchased.

Another consignment of the birds of Medellin, U. S. of Colombia, consisting of fifty specimens, sent by Mr. Salmon; purchased.

XXIX.—*Notes on a 'Catalogue of the* Accipitres *in the British Museum' by* R. Bowdler Sharpe (1874). By J. H. Gurney.

[Continued from p. 84.]

In considering the genera which are most nearly related to the Milvine group in the restricted sense of that term, and which if it be taken in a wider sense may be included in it, I would in the first instance refer to the American genus *Elanoides*, the sole species of which (*E. furcatus*), though bearing a considerable resemblance in external appearance to the *Milvi* of the Old World, possesses differences of structure which indicate that its true position is that of an isolated form, as has been pointed out by Mr. Ridgway, at p. 180 of his 'Studies of the American Falconidæ.'

I may add, with reference to this species, that its immature stage of plumage, which is not noticed in Mr. Sharpe's work, is described at page 192 of vol. iii. of Messrs. Baird, Brewer, and Ridgway's 'History of North-American Birds.'

From *Elanoides furcatus* the transition is a natural one to the little *Nauclerus rioucouri* of intertropical Africa, which at first sight appears to be a miniature species of *Elanoides*, but which is in reality more closely related to the genera *Elanus* and *Gampsonyx*.

One remarkable point of agreement between the three genera *Nauclerus*, *Gampsonyx*, and *Elanus* is the absence of any groove on the under surface of the claws—a peculiarity which has been pointed out by Mr. Ridgway in the article above referred to.

It is somewhat curious that the genera *Nauclerus* and *Gampsonyx*, like that of *Elanoides*, contain each but a single species.

In the case of *Gampsonyx*, as in that of *Elanoides*, the differences between the immature and adult stages of plumage, though not referred to by Mr. Sharpe, are very appreciable. An immature example of *G. swainsoni*, from the Upper Amazons, which is preserved in the Norwich Museum, differs from the adult bird in the following particulars, viz.:—All the feathers of the black cap, which extends from above the eyes to the nape, are tipped with pale fulvous, with which colour the upper nuchal collar (white in the adult) is also tinged; all the feathers of the mantle are more or less distinctly tipped with rufous brown, which is brightest and widest on the hinder tertials, where it takes the place of the white tips so conspicuous on those feathers in the adult bird; the rectrices are narrowly tipped with white, the breast, abdomen, and under wing-coverts being strongly tinged with rufescent fulvous.

As Mr. Sharpe does not mention the colour of the iris in this species, I may here note that an adult, or nearly adult, male, described in Léotaud's 'Oiseaux de la Trinidad, pp. 41 & 42, is there said to have had "cire, iris, et pattes jaunes."

I may add that the Norwich Museum possesses a specimen of *G. swainsoni* from Sta. Marta, Colombia, which is a more western locality than any of those quoted for this species by Mr. Sharpe*.

In referring next to the genus *Elanus*, I may observe that Mr. Sharpe, in his "Key to the Species" of that genus, applies the terms "inner lining of wing" and "wing-lining" to the under surface of the primaries; and I think it desirable, for the sake of guarding against any possible misapprehension, to mention that where I have used the phrase "wing-lining," I have not used it in the same sense as that in which Mr. Sharpe has, in this passage, applied it, but as designating the under wing-coverts, which seem to me to be the part of the wing to which the term "lining" most properly applies†.

Mr. Sharpe, very properly, as it seems to me, does not admit *E. minor* of Bonaparte as specifically, or even subspecifically, distinct from *E. cæruleus*; and though variations of size occur in this species, they do not seem to be of a very marked character; the length of the black patch on the wing-coverts also varies in different specimens, and more considerably so than the general dimensions.

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* Another westerly locality for this species is Tumbez, in North-western Peru (*vide* P. Z. S. 1877, p. 744.).

† The term "lining of the wing" is applied to the under wing-coverts in the article on the genus *Elanus* in Messrs. Baird, Brewer, and Ridgway's 'History of North-American Birds,' vol. iii. p. 197. On the other hand, Mr. Dresser, in his article on *E. cæruleus* in the 'Birds of Europe,' speaks of the "wing-lining" in the same sense as that in which the words are used by Mr. Sharpe.

I subjoin a summary of some measurements of this species, taken by myself, to which it may be well to premise that in the genus *Elanus* there seems to be but very little difference in the size of the sexes. Thus, in treating of *E. cæruleus* in his recent work on the birds of Ceylon, Captain Legge gives the wing-measurement in males as from 10·4 to 10·8 inches, and in females from 10·6 to 10·9; and the Norwich Museum possesses a male from Transvaal, and a female from Natal, in which the measurements of the wing and also of the tarsus are identical; whilst a still more remarkable instance is recorded in 'Stray Feathers,' vol. vii. p. 252, of a pair of these *Elani*, obtained at Furredpore in Eastern Bengal, in which the total length and wing-measurement in the male actually exceeded the corresponding dimensions in the female bird.

The under-mentioned specimens of *E. cæruleus*, which I have measured, are preserved in the British and Norwich Museums, and in the collections of Mr. Dresser and of my son, Mr. J. H. Gnrney, Jun.; the measurements are given in inches and decimals*.

	Wing.	Tarsus.	Black wing-patch.
Seville (sex unknown)	10·5	1·5	4·3
Tangiers (two females)	10·4 & 10·6	1·2 & 1·1	3·3 & 2·7
River Gambia (sex unknown)..	10·6	1·5	3·7
Accra (sex unknown)	10·6	1·3	4·5
Quanza, Portuguese possessions in W. Africa (sex unknown)	11·0	1·3	4·0
Cape of Good Hope (male)....	10·9	1·1	3·5
Natal (two females)	10·65 & 10·6	1·25 & 1·2	3·8 & 3·5
Transvaal (male)	10·6	1·2	4·2
„ (three, sex unknown)	10·55–10·9	1·25	4·2–4·7
Zambesi (sex unknown)	10·1	1·3	4·1

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* In this measurement I have only taken the length of the actual black patch, exclusive of the blackish-brown feathers, which often adjoin its posterior extremity.

	Wing.	Tarsus.	Black wing-patch.
Egypt (four males)	11·2–11·75	1·25–1·3	3·5–5·2
„ (two, sex unknown)....	11·1 & 11·4	1·25	4·9 & 4·7
Ceylon (two, sex unknown) ..	10·6 & 10·7	1·15 & 1·2	5 & 4·65
India (two, sex unknown)	10·7 & 10·8	1·1 & 1·3	3·6 & 3·7
Nepal (sex unknown)	10·4	1·3	4·1
Afghanistan (sex unknown) ..	10·6	1·1	3·1
Saigon, Cochin China (sex unknown)	11·3	1·2	5·1

It will be observed that in the above list the Egyptian specimens show a somewhat larger wing-measurement than those from other localities, with the exception of that from Cochin China; but otherwise the variations in size are not such as to indicate any marked local differences.

Mr. Sharpe, in treating of *E. hypoleucus,* refers to a specimen in the British Museum as being the type of that species; but it will be seen, by a reference to Mr. Gould's original description (P. Z. S. 1859, p. 127), that this is a mistake, the bird there described by Mr. Gould being a fully adult male obtained by Mr. Wallace at Macassar, and now preserved in the Norwich Museum. This species, which, though nearly allied to *E. cæruleus,* is certainly distinct, at least subspecifically, has an oceanic range, which is particularized in Mr. Sharpe's volume, and which is geographically intermediate between the eastern limit of *E. cæruleus* and the most northerly appearance of *E. axillaris.* Mr. Sharpe gives the habitat of the last-named species as Australia only; but, according to Mr. Gould, it occurs as far northwards as Java*, where, however, it appears to be much scarcer than *E. hypoleucus*; and, in confirmation of Mr. Gould's assertion, I may mention that the Norwich Museum possess a nearly adult specimen which was brought to this country by the celebrated traveller Madame Pfeiffer, who obtained it (as I was informed at the time) during her visit to the island of Java: in this specimen the measurements of the wing, tail, and external black wing-patch slightly exceed those of any Australian example which I have examined; and the grey on the back is somewhat darker than is usual in Australian specimens, with which, however, it appears to agree in all other respects.

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* *Vide* Gould's 'Birds of Asia,' sub *Elanus hypoleucus.*

The two Australian *Elani* (*E. axillaris* and *E. scriptus*) are both remarkable for the great paleness of the grey tints of the upper surface; and this circumstance appears to me to constitute the most marked and constant distinction between *E. axillaris* and the American *E. leucurus,* which (as the later-described species) should, I think, be considered a a subspecies of *E. axillaris.* It ought, however, to be observed that some slight individual variations in the tint of grey on the back occur in both *E. axillaris* and *E. leucurus,* sometimes producing a greater approximation between the two in such examples than exists between the bulk of average specimens of the two races.

Messrs. Baird, Brewer, and Ridgway, in their 'History of North-American Birds,' vol. iii. p. 196, devote an article to the different "species and races" of the genus *Elanus,* in which, under the head of "*E. leucurus,*" the following diagnosis is given:—

"Above deep bluish ash, with the inner webs of the secondaries appreciably paler, sometimes abruptly white; wing 11·60–12·65, tail 6·80–7·80, culmen ·65–·80, tarsus 1·20–1·50, middle toe ·94–1·20. *Hab.* Tropical and Subtropical America.—Var. *leucurus.* Above, pale ash, with the inner webs of the secondaries hardly, or not at all appreciably paler than the outer; wing 11·00–12·50, tail 6·20–7·00, culmen ·70–·77, tarsus 1·10–1·66, middle toe 1·05–1·08. *Hab.* Western Australia.—Var. *axillaris* . . . . Occasional specimens of *E. leucurus* occur, however, in which there is little difference in tint between the two webs of the secondaries."

Mr. Sharpe, in his "Key to the Species" of the genus *Elanus,* gives a somewhat different diagnosis between *E. axillaris* and *E. leucurus,* which I will also quote.

"Black patch on under wing-coverts very large, the greater series dark ashy grey, like the wing-lining . . *axillaris.*
Black patch on under wing-coverts less, and confined to a small patch on the outermost greater coverts, the rest of the series white slightly tinged with grey . . *leucurus.*

These differences do not appear to me to be entirely constant; and there is still more variation as regards the external wing-patch, with reference to which Mr. Sharpe remarks, in his description of *E. leucurus*, "least and median wing-coverts black, but not forming so large a black shoulder as in the other species."

Mr. Dresser, in his article on *E. cæruleus* in the 'Birds of Europe,' makes some remarks on the other species of the genus, and with reference to the two now under consideration agrees with Mr. Sharpe's view as regards the black patch on the under wing-coverts, and also adds, "judging from my specimens, *E. leucurus* has a somewhat longer tail;" this last characteristic, I find, holds good, on an average, of the individuals of the two races which I have examined.

The following measurements, in inches and tenths, have been taken by myself, and may, perhaps, be here inserted with advantage; but I ought to add that in four of the specimens of *E. leucurus* included in the list I was unable to measure the length of the inner wing-patch, on account of the birds being mounted*.

	Tail.	Wing.	Tarsus.	Outer wing-patch.	Inner wing-patch.
Elanus axillaris.					
From Java (Norwich Museum)	6·8	12·7	1·4	5·2	2·3
Australia (ten specimens).	5·7 to 6·3	11·5 to 12·3	1·2 to 1·5	2·9 to 5·0	1·3 to 2·3
Elanus leucurus.					
California (seven specimens.	6·4 to 7·3	12·2 to 13·3	1·3 to 1·5	3·6 to 5·5	1·7 to 2·9
Mexico (two specimens).	6·9 & 7·4	12·2 & 12·7	1·4 & 1·3	4·7 & 5·0	1·7
Venezuela (two males).	6·7 & 6·6	12·5	1·3	5·4 & 5·2	2·1 & 2·0

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* The specimens examined are preserved in the British, Cambridge, and Norwich Museums, and in the collections of Messrs. Salvin and Godman, and of Mr. Dresser.

	Tail.	Wing.	Tarsus.	Outer wing-patch.	Inner wing-patch.
British Guiana (two specimens).	6·3 & 6·2	12·2 & 11·8	1·3	3·7 & 3·9	2·0 & 1·7
Bahia (two specimens).	5·9 & 6·4	11·5 & 12·2	1·3 & 1·2	4·8 & 3·6	2·0 & 1·5
Chili (five specimens).	6·5 to 6·8	12·0 to 12·2	1·2 to 1·4	4·9 to 5·0	1·4 to 1·9
Straits of Magellan.	6·9	12	1·2	4·9	..

The genus *Ictinia*, though included by Mr. Sharpe in his "Subfamily *Falconinæ*," is so closely allied to *Elanus*, that I am disposed to consider it also entitled to a place amongst the outlying members of the Milvine group in its wider aspect, and as connecting that group with the true Falcons, and especially with the Hobbies.

Of the two species comprised in the genus *Ictinia*, the southern (*I. plumbea*) is by far the more abundant in the collections sent to this country, and appears to be especially numerous in British Guiana; an interesting note on its habits will be found at page 43 of Léotaud's 'Birds of Trinidad.'

The more northern species of the genus (*I. mississippiensis*) is decidedly scarce in the Museums of Great Britain, though it is said by Messrs. Baird, Brewer, and Ridgway*, to be an "exceedingly abundant summer-bird on the prairies of Southern Illinois." The same authors give as the habitat of this species "Central Mexico and Southern United States;" but Mr. Salvin states that it ranges as far south as Guatemala; and a specimen from Coban is recorded in 'The Ibis' for 1861, p. 355.

The American authors to whose work I have just referred, supply an excellent account of this species, including a description of its immature dress, in which stage it has not been described by Mr. Sharpe.

The ramifications of Milvine affinity extend to and include some other genera, more abnormal than those which we have hitherto considered; and to one of these, the genus *Rostrhamus*[*], I would now refer.

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* *Vide* 'History of North-American Land-Birds,' vol. iii. p. 204.

The birds of this genus are especially characterized by a bill of extraordinarily slender proportions, in which the hook terminating the upper mandible is prolonged in a most remarkable manner, forming an admirable tool for extracting from their shells the freshwater mollusks on which these birds in great measure subsist, whilst a similar slenderness of proportion is observable in the long and sharp talons with which their feet are armed.

Messrs. Baird, Brewer, and Ridgway[†] apply the specific name of *sociabilis* (Vieillot, ex Azara) to the species which Mr. Sharpe describes under the name of *leucopygus* proposed for it by Spix; and in this, I think, they are right, as it appears to me that both these names refer to the same species, and "*sociabilis*," being the older, of course has priority.

The bird described by Azara, and from his description redescribed by Vieillot in the 'Nouveau Dictionnaire,' vol. xviii. p. 318, under the name of *Herpetotheres sociabilis*, was immature, which would make it difficult to decide to which species it should be referred, were it not for the fact that Azara made his collections in the neighbourhood of the river Paraná, and that in this district of the province of Buenos Ayres the *R. leucopygus* of Spix is known to occur.

The late Mr. Durnford, writing in 'The Ibis' for 1877 respecting the birds of Buenos Ayres, and especially as to his collections in the neighbourhood of a branch of the Paraná, mentions this species, on page 188, as "resident and not uncommon;" and an adult specimen procured by that gentleman at Lujan-bridge, on the Campana railway, Buenos Ayres, is now in the possession of Messrs. Salvin and Godman[‡].

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[*] The name is thus spelled in the original description of the genus in Lesson's 'Traité,' p. 55; in Mr. Sharpe's volume the spelling adopted is *Rosthramus*.

[†] *Vide* 'Birds of North America,' vol. iii. p. 208.

[‡] The following is copied from Mr. Durnford's ticket attached to this specimen:—

"♂. Iris rich crimson, cere orange, legs and feet darker orange; stomach full of water-mollusks."

The probability that the immature bird described by Azara was of the same species as that for which Spix subsequently proposed the name of *leucopygus,* seems therefore to be sufficiently strong to warrant this appellation being merged in that of *sociabilis* as a prior synonym.

I am not aware that this species extends further southward than the Argentine Republic, on the eastern side of the American continent; to the west it occurs as far south as Bolivia and Peru, specimens from each of those States being preserved in the Norwich Museum; its northern range extends to Mexico; but its exact limit in that direction appears not to have been very accurately ascertained. Mr. Sharpe also includes in the habitat of this species "Florida and the Antilles;" but in his addenda, at page 459, he notes that "Mr. Ridgway (B. N. Am.) separates the Florida bird as *R. sociabilis,* var. *plumbeus.*"

I have not seen a specimen of *R. plumbeus*; but from the description given by Mr. Ridgway and his colleagues in the article above referred to, it would appear to be a distinct subspecies peculiar to Cuba and Southern Florida.

A much more distinct species is *R. hamatus* (Temm. ex Ill.), which is apparently restricted to the more northern countries of South America, and which, so far as I know, has never been obtained to the north of the Isthmus of Panama.

The museums of this country contain many examples of *R. sociabilis=leucopygus*; but I do not know of a single specimen in any of them either of *R. plumbeus* or of *R. tæniurus* (to be subsequently mentioned), and but one of *R. hamatus,* an adult female from Remedios in Antioquia, which is in the possession of Messrs. Salvin and Godman, who have kindly given me the opportunity of examining it.

R. hamatus is readily distinguished from *R. sociabilis= leucopygus* by its smaller size, much shorter tail, more plumbeous coloration, and the entire absence of white from all parts of the plumage; it is probably the same species as that described in Mr. Sharpe's volume under the name *sociabilis*; but the specimen from Remedios, above referred to, has the tail entirely black, instead of its being "grey with a broad terminal band of black," as described by Mr. Sharpe, in which particular it seems to agree with Temminck's figure in the Planches Coloriées, pl. 61.

The description contained in the letterpress which accompanies Temminck's plate evidently refers to another species, probably to *R. sociabilis*=*leucopygus*, as it states that "la base de la queue et les couvertures de dessous sont blanchâtres."

The specimen figured by Temminck was in the Leyden Museum*, and apparently agreed with the example of the whole-coloured species described under the name of *Buteo hamatus* of Illiger, from a Brazilian specimen in the collection of Baron Laugier, in vol. iii. p. 1223 of the 'Tableau Encyclopédique et Méthodique' of Bonnaterre and Vieillot, published in 1823. This was also the year of the publication of the part of Temminck's and Laugier's 'Planches Coloriées' that contained the figure above referred to.

I have taken the following measurements (in inches and tenths) from the specimen of *R. hamatus* in the collection of Messrs. Salvin and Godman:—

	in.
Culmen, without the cere	1·4
Wing	11·7
Tail at the centre	4·9
" " outer rectrices	5·1
Tarsus	1·7
Middle toe *s. u.*	1·5

The following note has been attached to the skin by the collector, "♀. Iris orange; food fish."

Messrs. Baird, Brewer, and Ridgeway (*l. c.*) appear to refer to *R. hamatus* a specimen brought from the Amazons by Lieut. Herndon, which differs from Messrs. Salvin and Godman's example, and also from Temminck's figure, in having the "tail perfectly even, with an obscurely indicated narrow interrupted band of dark plumbeous across its middle portion;" and they likewise refer to the same species a specimen in the collection of the Boston Society, respecting which they remark that "it has the bands on the tail more conspicuous than the last-named example, and agrees with *R. tæniurus* of Cassin."

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* Compare footnote to Temminck's article on his "*Falco hemidactylus*," published in the first livraison of his work, in which he says, "Pour éviter en chaque article des répétitions inutiles, on est prévenu que la première collection nommée est toujours celle où se trouve l'individu qui a servi de modèle à nos 'Planches Coloriées."

Not having seen either of the above-mentioned specimens, nor yet the type specimen of *R. tæniurus*, I am unable to offer an opinion as to whether they are, or are not, distinct from the true *R. hamatus*; but Mr. Sharpe's description of the type specimen of *R. tæniurus* appears to indicate a distinct species.

With the kind assistance of Mr. Salvin I have drawn up the following list of synonyms of the different species of *Rostrhamus*, from which I have omitted all such citations as appear to me to be of too doubtful a character to admit of satisfactory identification; the order in which the species are arranged accords, as far as possible, with that adopted by Mr. Sharpe:—

1. ROSTRHAMUS HAMATUS.

Falco hamatus, Temm. ex Illiger, Pl. Col. i. pl. 61, and probably pl. 231 (1823).

Buteo hamatus, Bonn. et Vieill. Enc. Méth. iii. p. 1223 (1823).

**Ibycter sociabilis*, Schl. Mus. P. B. *Polybori*, p. 7 (1862).

Ibycter sociabilis, Schl. Revue, p. 138 (1873).

**Rostrhamus hamatus*, Baird, Brewer, and Ridgway, Birds of North America, iii. p. 209 (1874).

**Rosthramus sociabilis*, Sharpe, Cat. Accipitres, p. 327 (1874).

[The citations marked with an asterisk in the foregoing list refer wholly or in part to specimens showing transverse bars upon the tail, which may possibly prove to be specifically distinct.]

2. ROSTRHAMUS TÆNIURUS.

Rostrhamus tæniurus, Cab. J. f. O. 1854, p. 80.

R. tæniurus, Scl. & Salv. Nomencl. p. 121 (1873).

Rosthramus tæniurus, Sharpe, Cat. Accipitres, p. 328 (1874).

3. Rostrhamus sociabilis.

Gavilan del Estero sociabile, Azara, Apunt. i. p. 84 (1802); Hartl. Index Azara, p. 2 (1847).

Herpetotheres sociabilis, Vieill. N. Dict. xviii. p. 318 (ex Azara) (1817).

Falco hamatus, Temm. Pl. Col. text to pl. 61 (1823).

Cymindis leucopygus, Spix, Av. Bras. p. 7. pl. 2 (1824).

Falco hamatus, Max. Beitr. Naturg. Bras. iii. p. 182 (1830).

Rostrhamus niger, Less. Traité, p. 56 (1831).

Rosthramus sociabilis, D'Orb. Voy. Amér. Mérid. Ois. p. 73 (1847).

Rostrhamus hamatus, Burm. Th. Bras. iii. p. 46 (1856).

Rostramus hamatus, Burm. La Plata-Reise, ii. p. 435 (1861).

Rostrhamus hamatus, Léot. Ois. Trinid. p. 31 (1866).

Ibycter leucopygus, Schl. Mus. P. B. *Polybori,* p. 8 (1862); id. Revue, p. 138 (1873).

Rostrhamus sociabilis and *R. leucopygus,* Scl. & Salv. Nomencl. p. 121 (1873).

Rostrhamus sociabilis, var. *sociabilis,* Baird, Brewer, and Ridgway, Birds of N. America, iii. pp. 208, 209 (1874).

Rosthramus leucopygus, Sharpe, Cat. Accipitres, p. 328 (1874).

Subspecies A. *Rostrhamus plumbeus.*

Rostrhamus hamatus, Gundlach, Journal für Orn. 1854, p. lxxx.

Rostrhamus sociabilis, Cass. Birds of California and Texas p. 107 (1855); Baird, Cassin, & Lawrence, Birds of N. America, p. 38, pl. 65; Coues, Key N. Am. Birds, p. 211 (1872); Maynard, Birds of Florida, pl. 1. (1872).

Rostrhamus sociabilis, var. *plumbeus,* Baird, Brewer, and Ridgway, Birds of N. America, iii. pp. 208, 209 (1874); Sharpe, Cat. Accipitres, p. 459, ex Ridgway (1874).

[To be continued.]

XXX.—*Notes on the Birds of the Straits of Gibraltar.*

By L. Howard Irby.

Since publishing in 1875 my 'Ornithology of the Straits of Gibraltar,' I have again visited my old haunts, and have also received a good deal of information relative to the birds of the district, chiefly from Mr. Stark, a brother member of the B. O. U., and an excellent observer, who has spent several months in Andalucia. I think, therefore, that the following notes may be interesting, several of the species mentioned being new to the avifauna of the Straits:—

Neophron percnopterus.

Lieutenant Verner, of the Rifle Brigade, a most zealous practical observer, has sent me the following note, relative to this Vulture nesting in a tree. The Indian *Neophron* (*N. ginginianus*), which is barely separable from the European bird, usually nests in trees; but I never before knew the Egyptian Vulture to nest in Spain anywhere but on rocks; and in this instance there is no want of cliffs in the neighbourhood.

"On April 6, 1879, I visited a Short-toed Eagle's (*Circaetus gallicus*) nest in the cork-wood near Gibraltar, which I had first discovered in May 1877, on which occasion Col. Irby shot the female bird as she flew off the nest.

"This nest was placed on a horizontal bough of a cork tree, about twenty feet from the ground. On climbing to the nest I found it repaired, and a Short-toed Eagle circling overhead, making the usual fuss.

"On the 18th I again visited the nest, and found an Egyptian Vulture sitting in it. On climbing up I found one egg. The nest had been lined with rags, old rope, goat's hair, &c., and, as usual, was very bad smelling. I took the egg.

"On the 25th I again visited the nest and found the Vulture sitting on a second egg she had laid. I took this, and caught the old bird in a trap, and have her now in barracks.

"Gibraltar, April 26, 1879."

Aquila clanga.

In my list this is erroneously named *A. maculata.* Two adult specimens have occurred in winter near Seville (*vide* Ibis, 1877, p. 418).

HALIAETUS ALBICILLA.

Mr. Stark, during the first week in May 1876, found a nest of the White-tailed Eagle on a cliff on the coast. I refrain from mentioning the exact locality for obvious reasons. The nest contained one young bird nearly able to fly.

ELANUS CÆRULEUS.

Mr. Stark saw one of these Hawks near Vejer on the 10th of May, 1876.

CYPSELUS PALLIDUS.

The Pallid Swift is found as far north as Granada and Lanjaron. It nests at Gibraltar in holes of the sea-wall, also in the roof of the patio of the convent, where Mr. Verner took several nests with eggs and young. The eggs and nest resemble those of *C. apus*; but the young are, if any thing, very slightly less marked with white.

PICUS NUMIDICUS.

Comparing Moorish specimens with Andalucian specimens of *P. major*, I fail to detect the difference, pointed out by Messrs. Sharpe and Dresser, that the African bird has a longer and more slender bill. Andalucian specimens of *P. major* sometimes run very closely to the African form in having crimson markings on the breast, but are never, so far as I have seen, so decidedly marked.

GECINUS VAILLANTI.

I have seen an adult male from Morocco with the moustachial stripe washed with red, though not so decidedly marked as in males of *G. viridis*, or in the Spanish race *G. sharpii*. Should, however, this red moustache be frequent in adult males of *G. vaillanti*, then the Spanish and North-African Woodpeckers are not specifically separable. Anyway the subject requires further investigation.

SAXICOLA LEUCURA.

From the Black Chat's habit of nearly always constructing a screen or pile of small stones in front of the nest, which is usually built in a hole of a rock, and also sometimes making in addition a foundation to the nest of stones, the bird is known to the goatherds under the name of Pedrero, or Stonemason.

HYPOLAIS OPACA.

This Warbler, though very rare near Gibraltar, is very abundant near Malaga, Granada, and Lanjaron, and has recently been obtained near Seville. Francisco de los Rios, who, I regret to say, has passed away, showed me a nest built in the garden of the Instituto at Malaga. The Yellow Warbler, *H. polyglotta*, is not so common there. Both species breed about the end of May.

PARUS PALUSTRIS.

The Marsh-Titmouse, a species I never observed near Gibraltar, but mentioned by Mr. Saunders as found near Granada, was observed there also by Mr. Stark. It is not uncommon in the north of Spain, near Santander.

PARUS PENDULINUS.

Specimens of this Titmouse have lately been procured near Malaga.

COTYLE RUPESTRIS.

In my note on the Cliff-Martin, I made the great error of stating that the nests of these birds resemble those of *Chelidon urbica*; it should have been *Hirundo rustica*, the nests being open, not covered.

MOTACILLA ALBA.

Mr. Stark found a nest of the White Wagtail near Alora. This is the only instance I have heard of this bird breeding so far south.

BUDYTES RAII.

I saw specimens of the Yellow Wagtail obtained on passage near Malaga by Rios, and others collected by Olcese near Tangier.

LULLULA ARBOREA.

The Woodlark has lately been found nesting near Malaga.

Certhilauda duponti.

Obtained by Rios near Malaga (*vide* P. Z. S. 1877, p. 368).

Emberiza citrinella.

I saw a single specimen of the Yellow Hammer, obtained by Rios near Malaga. This is a common bird in the north of Spain near Santander.

Emberiza pusilla.

I saw two specimens of this Bunting, obtained on the 28th of December, 1874, near Malaga. Rios informed me that eight or nine were caught.

Plectrophanes nivalis.

A male Snow-Bunting was shot near Malaga on the 18th of November, 1872.

Erythrospiza githaginea.

This bird has again occurred near Malaga (*vide* Ibis, 1877, p. 492).

Fulica cristata.

Lieutenant Kelham, 74th Highlanders, obtained a single specimen of the Red-lobed Coot near Gibraltar in March 1873; the bird was alone. This Coot frequently occurs on passage near Malaga, and thus should nest further north.

Houbara undulata.

Recorded from near Malaga.

Cursorius gallicus.

Rios showed me some shot near Malaga.

Charadrius fulvus.

Lord Lilford writes to me that he has lately obtained a specimen of the Eastern Golden Plover, which was killed near Malaga.

Phalaropus fulicarius.

Lieut. Kelham shot two specimens of this Phalarope at Tapatanilla on the 4th of December, 1875. He saw several more. Other specimens have lately occurred near Tangier.

Anser cinereus.

In May 1876 Mr. Stark noticed two Geese on the Laguna de la Janda; later on a Goose and some seven or eight eggs were brought into Gibraltar from the same place. There is little doubt that these birds had been slightly wounded and unable to migrate.

ANSER ERYTHROPUS.

A male of this species was obtained by Ruiz near Seville in February 1878. This specimen is in Lord Lilford's collection.

LARUS GELASTES.

Ruiz found this Gull breeding about the 21st of May on the Guadalquivir.

ALCA TORDA.

I saw a Razorbill at Gibraltar during the last week in May 1877.

XXXI.—*Remarks on the Nomenclature of the British Owls, and on the Arrangement of the Order* Striges. By P. L. SCLATER.

It is much to be regretted that Prof. Newton—our great authority on the nomenclature of British Birds—has in most cases contented himself with giving to the ornithological world the results of his investigations on this subject without explaining the reasons which have led him to adopt certain names, generic as well as specific, in place of those usually current. A series of notes on the much-vexed questions of priority occasioned by the conflicting views of previous writers on this subject, would, I am sure, have much interested the readers of 'The Ibis,' and have saved future inquirers much anxiety and tribulation.

It having been allotted to me, as a member of the B.O.U. Committee on the List of British Birds, to examine the nomenclature of the Strigidæ, I have thought it might be for the benefit of future writers to place on record a few notes I have made on this subject, chiefly containing the reasons why I have ventured to differ from Prof. Newton's views on certain points.

First, as regards the type of the Linnean genus "*Strix*," I agree with my fellow-Editor of this Journal, who has already expressed his dissent from the author of the new edition of 'Yarrell's Birds' on this point*; and Mr. Sharpe has clearly explained the reasons† which have induced us to follow the nearly universal practice of modern naturalists on this question. I will therefore now only repeat that I am decidedly of opinion that the Barn-Owl, *Strix flammea*, should be regarded as the type of the *Linnean* (not *Brissonian*) genus *Strix*, as restricted by Savigny in 1809. It follows that "Strigidæ" will be the name of the family of the order "Striges" to which the Barn-Owl and its congeners belong, while "Asionidæ" will be the name of the larger family which embraces all the remaining Owls.

The serious question now arises, What is to be regarded as the type of the genus *Asio* of Brisson? Now Brisson included in his "*Asiones*" species of several different genera of modern authors. The Great Horned Owl (*Bubo*) is, it is true, put first in the list; but the Long-eared Owl, being called "*Asio*" only, may, I think, be fairly taken as the type of the Brissonian genus "*Asio*;" and the Long-eared Owl will thus stand as *Asio otus* (Linn.).

Next as regards the specific name of the Short-eared Owl, for which I am pleased to be able to agree with Prof. Newton in adopting the generic name "*Asio*" of Brisson. Prof. Newton casts overboard the venerable and universally known name, "*brachyotus*," in favour of "*accipitrinus*" of Pallas; and other authors have blindly followed his lead. Now *Strix accipitrina* is a name given by Pallas to an Owl which he "observed" on the Caspian Sea during his travels in those regions, 1768–69, and described in the appendix to his "Reise durch verschiedene Provinzen des Russischen Reichs (erster Theil, St. Petersburg, 1771), along with other plants and animals, under the head "Descriptiones fugitivæ animalium atque plantarum annis 1768 et 1869 observatarum." As this work is rather scarce, we will give the original description, as follows:—

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* *Cf* Ibis, 1875, p. 66.

† Ibis, 1875, p. 324.

"STRIX ACCIPITRINA.

"*Magnitudo* circiter St. Ululæ, habitus anomalus. *Caput* proportione minus, quam in congeneribus omnibus, inauritum. *Pepla* parua, antice alba, posterius subferruginea, macula pone oculos, palpebraque superiore atris *Rostrum* nigrum, irides citreæ. *Auricularum* plumæ marginales in valuulis albæ, circulus lutescente nigroque varius. *Corpus* supra lutescens, subtus lutescente-album, lituris ubique longitudinalibus, nigricantibus, subtus guttatis. *Alæ* subtus et crissum alba. *Remiges* exterius lutescentes, interius albæ, nigro tessellatæ; extima sola serrata. *Tectrices* inferæ primariæ apice atræ. *Cauda* alis brevior, leviter rotundata, lateribus albida, tota nigricante transversum fasciata. *Pedes* lutescente-albi, immaculati, usque ad ungues vestiti.

"*Obs.* ad mare Caspium."

Now I do not affirm that the bird thus described by Pallas was *not* a Short-eared Owl. Very probably it might have been an individual of that species; for the description, so far as it goes, agrees perhaps better with that than with any other Owl that is likely to have occurred on the Caspian. But it will be noticed that the head of *Strix accipitrina* is said to be "*inauritum*," which is not quite correct, and that no dimensions whatever are given. Looking to these points, and to the facts that it does not appear that the *Strix accipitrina* was really ever obtained, but only "observed," that this name was never afterwards acknowledged, even by its own author (who subsequently always called the Short-eared Owl "*Strix ægolius*"), and that it has remained dead and buried ever since it was published in 1771 until it was resurrectionized in 1872, I think we may well hesitate before we follow Prof. Newton's lead on this point. It seems to me, certainly, that it is better only to give Pallas's name "*Strix accipitrina*" place as an uncertain synonym. Exactly the same may be said respecting S. G. Gmelin's "*Noctua minor*" (Nov. Comm. Petr. xv. p. 447, 1771), which is sometimes quoted as a synonym of the Short-eared Owl, but which it is likewise best to put aside as a dubious term. It remains, therefore, to employ as the name of the Short-eared Owl the very appropriate and universally known name, "*brachyotus*" of Forster, which was promulgated by Forster in his paper read before the Royal Society on the 18th of June 1772, and published* only one year after Pallas's "*accipitrina*."

The term *Strix* having been relegated to its proper place as the generic name of the Barn-Owl, we are enabled to restore to the Tawny Owl the well-known name "*Syrnium*" of Savigny (1809), which has met with such general adoption.

The next question that arises is as to the correct specific name of the Great Horned Owl, *Strix bubo* of Linnæus, assuming that we are justified, as I think we are, in regarding that species as the type of Duméril's genus *Bubo*† (1806). Prof. Newton employs "*ignavus*," quoting "*Bubo ignavus*, T. Forster, Synoptical Catalogue of British Birds, p. 3 (1817)." But on referring to this scarce pamphlet, I find that Forster gave no such name to the Great Horned Owl. In his preface Forster says, "The large capitals (of my list) will designate the Linnæan name according to the arrangement *now adopted*. The *small Roman letters* will mark the names of the old writers brought to life again by Dr. Leach."

Now "*Bubo ignavus*" is printed in *romans*, thus:—

"STRIX BUBO . . . . Bubo ignavus,"

and is evidently only one of the "names of the old writers brought to life again by Dr. Leach." Forster's name for the Eagle Owl is "*Strix bubo*," as will be perfectly plain to any one who refers to his 'Catalogue;' and to attribute the name "*Bubo ignavus*" to Forster is clearly a mistake. What Forster did was to publish in 1817 a MS. name of Dr. Leach, or of some other old author, as a *synonym*, which he did not adopt himself. This name must therefore be rejected.

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* Phil. Trans. lxii. p. 384 (1772).

† Duméril created his genus for the "Chouettes à oreilles de Linné," which are strictly equivalent to Brisson's "*Asio*." But as he elevated the specific term *Bubo* to generic rank, I think we may assume that he considered *Strix bubo* as his type.

Mr. Sharpe (Cat. B. ii. p. 14) gives *Bubo microcephalus* of Leach as a synonym of the Great Horned Owl, which, if correct, would be the next term in point of date. But this is likewise a mistake, into which Mr. Sharpe has doubtless fallen by following Stephens (Gen. Zool. xiii. pt. i. p. 55). *Otus microcephalus* is Leach's name (Syst. Cat. Mamm. & Birds, p. 11) for what he calls the "Small-headed Horn-Owl," and is correctly referred by G. R. Gray (Cat. B. B. p. 27) to the Short-eared Owl. This is quite evident, because Leach includes the "Great Horned Owl" in his supplementary list of "Indigenous Mammals and Birds that are wanting to the British Museum."

Under these circumstances it would seem that we must be content to adopt for the Great Horned Owl the excellent name of *Bubo maximus* given to it by Fleming in 1828, arranging our synonyms as follows:—

Bubo maximus.
Strix bubo, Linn. Syst. Nat. i. p. 131 (1766).
"*Bubo microcephalus,* Leach," apud Stephens, Gen. Zool. xiii. pt. ii. p. 55 (1826) (err.).
Bubo maximus, Fleming, Brit. An. p. 57 (1828).

One remaining point in which I cannot agree with Prof. Newton is in discarding the generic term *Athene* of Boié for the Little Owl and its congeners. The ground on which this has been done is, I suppose, because *Athena* was proposed by Hübner in 1816* as the name of a genus of Lepidoptera of the family Nymphalidæ. Even if this term had met with general adoption, it is, to my mind, very doubtful whether we should be thereupon justified in cancelling "*Athene*" as a genus of birds. If we use *Picus* and *Pica* in the same class of zoology, it seems hard to say that *Athene* and *Athena* cannot be employed in two different classes. But, so far as I can make out, *Athena* is not even in actual use as a generic term of Lepidoptera†; and I think, therefore, we are not justified in superseding "*Athene*" in favour of the more recently proposed "*Carine.*"

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* Verz. bek. Schmetterl. p. 36.

† *Cf.* Kirby, Syn. Cat. Diurn. Lepidopt. p. 220.

The names, therefore, which in my opinion ought to be used for the ten commonly recognized "British Owls" are as follows:—

Strix flammea, Linn. Barn-Owl.
Asio otus (Linn.). Long-eared Owl.
Asio brachyotus (J. R. Forst.). Short-eared Owl.
Syrnium aluco (Linn.). Tawny Owl.
Nyctala tengmalmi (Gm.). Tengmalm's Owl.
Nyctea scandiaca (Linn.). Snowy Owl.
Bubo maximus, Fleming. Eagle Owl.
Scops giu (Scop.). Scops Owl.
Athene noctua (Scop.). Little Owl.
Surnia funerea (Linn.). American Hawk Owl.

I will now say a very few words upon the principal divisions of the Order Striges.

In treating of the British Owls in the first volume of his edition of 'Yarrell,' Prof. Newton has spoken of the "scheme of classification" of these birds prepared by Mr. Salvin and myself when we were engaged on a projected paper on the Owls of the New World some years ago. As this paper has never been completed, and may now probably never appear—at any rate in the shape originally contemplated—I think it may be of interest, as Prof. Newton and Mr. Sharpe* have both followed the general plan then propounded, to give the original classification which we drew up, and upon which the American species were subsequently arranged in our 'Nomenclator.'

Order STRIGES.

I. Sterni cristâ dilatatâ et ad furculam summam attingente; fissuris sterni posticis nullis .... Strigidæ.
II. Sterni cristâ angustâ, nec summam furculam attingente; fissuris sterni utrinque duabus .... Asionidæ.

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[*] *Cf.* Sharpe, Cat. B. ii. p. 289, and P. Z. S. 1879, p. 175.

II. Asionidæ.	
a. Aures operculo præditæ.	
a'. cornuti	1. *Asioninæ.*
b'. non-cornuti	2. *Syrniinæ.*
b. Aurium operculo nullo.	
c'. cornuti	3. *Buboninæ.*
d'. non-cornuti	
a''. digiti plus minusve nudi	4. *Atheninæ.*
b''. digiti plumis densis obsiti	5. *Nycteinæ.*

XXXII.—*Notices of recent Ornithological Publications.*

(Continued from p. 220.)

48. *Barboza du Bocage's 'Mélanges Ornithologiques.'*

[Mélanges Ornithologiques. Par J. V. Barboza du Bocage. Nos. iv. and v. Jorn. Scien. Math. Phys. e Nat. Lisboa, nos. xxiii. xxiv. 1878.]

The following new Angolan species are described in pt. iv.:—*Nectarinia anchietæ, Hylypsornis salvadorii* (*v.* Ibis, 1879, p. 115), *Parus rufiventris, Lanius souzæ,* and *Nilaus affinis.* In pt. v.:—*Nectarinia oustaleti, Hirundo rufigula, Platisteira mentalis, Muscicapa* (*Butalis*) *finschi, Tricholais pulchra, Sharpia angolensis,* and *Penthetria hartlaubi. Sharpia* is a new genus of Weaver-birds (Ploceidæ), allied to *Hyphantornis* and *Sycobius.*

49. *Barboza du Bocage on West-African Birds.*

[Aves das possessões portuguezas d'Africa occidental. Par J. V. Barboza du Bocage. Listas xvi. xvii. Jorn. Scien. Math. Ph. e Nat. Lisb. nos. xxiii. xxiv. 1878.]

Prof. Barboza du Bocage's sixteenth article on the Birds of the Portuguese territory in West Africa gives us the names of and notes upon fifty-two species obtained at Caconda by Sr. Anchieta in September, October, and November 1877. Five of these are new to the fauna of Angola. An appendix contains the names of seventy-six species represented in a subsequent collection made by the same indefatigable collector in December 1877 and in the first two months of 1878.

The seventeenth article gives the result of an examination of the collections made by Sr. Anchieta in the months from April to July 1878. The 312 examples are referred to 105 species, of which 14 are new to the fauna of Angola and 13 are new to science. These are *Caprimulgus shelleyi*, allied to *C. pectoralis*, and 12 other species described in the 'Mélanges Ornithologiques.'

50. *Barrows's Catalogue of the* Alcidæ.

[Catalogue of Alcidæ contained in the Museum of the Boston Society of Natural History. With a review and proposed classification of the the family. By W. B. Barrows. Proc. Boston Soc. N. H. xix. p. 150.]

Mr. Barrows adopts Dr. Coues's definition of the family (*cf.* Proc. Phil. Ac. Nat. Sci. 1868, p. 14), and recognizes 21 species divided into 7 genera. After describing these, and cataloguing the specimens in the Academy's Museum, he adds some general remarks on the arrangement and classification of the family, which he does not think can be subdivided into groups higher than generic.

51. *Beccari's Ornithological Letter from Sumatra.*

[Lettera del Prof. Odoardo Beccari a Giacomo Doria. Ann. Mus. Civ. Genova, xiii. p. 405.]

Prof. Beccari's letter is dated from Kaja Tunam in Sumatra, September 8, 1878, and gives some interesting notes on the birds of that district.

52. *Bendire on the Birds of South-eastern Oregon.*

[Notes on some of the Birds found in South-eastern Oregon, particularly in the vicinity of Camp Harney, from November 1874 to January 1877. By Captain Ch. Bendire, U.S. Army. Proc. Boston Soc. N. H. xix. p. 109.]

Captain Bendire gives us notes of 191 species of birds met with in South-eastern Oregon, principally near Camp Harney, which is situated on the southern slope of one of the western spurs of the Blue Mountains, at an altitude of about 4800 feet above the sea-level. The list is compiled from materials in the hands of Lieut. G. R. Bacon, U.S.A., and from personal observations.

Oreoscoptes montanus is a common summer resident and superb songster. *Pipilo chlorurus* was found breeding. *Falco polyagrus* was not rare.

53. *Cabanis on East-African Birds.*

[Uebersicht der Vögel Ost-Afrikas, welche von den Herren J. M. Hildebrandt und v. Kalckreuth gesammelt sind. Bearbeitet von J. Cabanis. Mit einer Einleitung und biologischen Notizen der Reisenden. J. f. O. 1878, p. 213.]

This important memoir, of which we have received a separate copy, contains an account of the collections made by Hrn. Hildebrandt and v. Kalckreuth in 1876 and 1877 on the island of Zanzibar and on the adjacent parts of the African continent, where excursions were made from Monbassa up to the base of the Snow-mountains Kilima-ndjaro, and Kerwa. Examples of 195 species were obtained, amongst which were the following novelties—*Turdus tephronotus, Bessornis intercedens, Macronyx tenellus, Phyllopneuste trochilus, Lanius* (*Fiscus*) *dorsalis, Crateropus hypoleucus, Cinnyris* (*Chalcomitra*) *kalckreuthi, Habropyga minor, Hyphanturgus melanoxanthus, Notauges hildebrandti, Pogonorhynchus irroratus, Tricholæma stigmatothorax, Tricholæma lacrymosa, Trachyphonus erythrocephalus, Francolinus* (*Scleroptera*) *hildebrandti.*

54. *Coues on the Birds of Dakota and Montana.*

[Field-notes on Birds observed in Dakota and Montana along the Forty-ninth Parallel during the seasons of 1873 and 1874. By Dr. Elliott Coues. Bull. Geol. and Geogr. Surv. iv. no. 3.]

Dr. Coues's field-notes made during his connexion with the U. S. Northern Boundary Commission are, as usual, full of interest, and relate to a very little known-country lying along the northern boundaries of Dakota and Montana, from the Red River to the Rocky Mountains. Full notes are given on such rarities (hitherto considered) as *Neocorys spraguii, Plectrophanes ornatus* and *P. maccowni, Passerculus bairdi,* and *Coturniculus lecontii,* of which the first four were found breeding, and eggs and young were obtained. Our Bohemian Wax-wing (*Ampelis garrulus*) and Harlequin Duck (*Histrionicus torquatus*) were also both detected breeding.

55. *Coues on the Birds of the Colorado Valley.*

[Birds of the Colorado Valley, a Repository of Scientific and Popular Information concerning North American Ornithology. By Elliott Coues. Part I. Passeres, to Laniidæ. U.S. Geol. Survey of the Territories. Miscell. Publications.—No. 11. 1878.]

Although nominally relating only to the species found in the great Colorado basin, this publication seems to be the first portion of a new and important work on North-American Birds, from the pen of one of the most active and competent ornithologists of the United States. The present volume contains the Passeres as far as the end of the Laniidæ, and gives characters of each genus and species and very full synonymy. Long field-notes of the most interesting character are also given. References to the "extra limital" species are added in footnotes. But a most important part of the work is the 'Bibliographical Appendix,' containing the "titles and digests of works and papers relating solely to the birds of North America indiscriminately, collectively, or in general," and forming the North-American section of the "Faunal Publication series" of the author's 'Bibliography of Ornithology.' The titles are arranged chronologically, commencing in 1612; but indices of the authors and localities are added.

We trust that Dr. Coues may succeed in carrying out his plan of treating the whole of ornithological literature in the same manner; for no work could more materially assist the progress of our favourite branch of science.

56. *Fischer and Reichenow on Birds from Zanzibar.*

[Uebersicht der von Dr. G. A. Fischer auf Sansibar und während einer Reise durch das Küstenland von Mombassa bis Wito gesammelten oder sicher beobachteten Vögel. Von Dr. G. A. Fischer und Dr. Ant. Reichenow. J. f. O. 1878, p. 247.]

The list of birds obtained or observed by Dr. Fischer in Zanzibar, and during his journey on the mainland from Mombassa to Wito contains 158 species. Two of the new species have been already described in the 'Ornithologisches Centralblatt' for 1878 (p. 88), viz. *Pyrenestes unicolor* from

Zanzibar and *Corythaix fischeri* from Wito. Besides these, *Megalophonus fischeri* from Mombas is now characterized as new.

57. *Gibson on Birds from the Straits of Magellan.*

[On certain Birds collected by the late Captain (Rear-Admiral) P. P. King in the Straits of Magellan between the years 1826–27. By John Gibson. Proc. R. Physical Soc. Edinb. vol. iv. p. 183, 1878.]

Mr. Gibson finds certain types of Capt. King in the Museum of Science and Art at Edinburgh, and identifies *Fulica gallinuloides*, King, with *F. leucoptera*: *cf.* Sclater, P. Z. S. 1878, p. 291, where the same identification is made. The types of *Athene nana, Syrnium rufipes*, and *Picus magellanicus* are in the same collection, also a Duck, believed to be his *Anas scapularioides*, which is probably = *A. cristata.*

58. *Gould's 'Birds of New Guinea.'*

[The Birds of New Guinea and adjacent Papuan Islands, including any new species that may be discovered in Australia. By John Gould, F.R.S. &c. Part IX. Folio: London, 1879. Published by the author, 26 Charlotte Street, Bedford Square, W.C.]

The ninth part of Mr. Gould's great work contains the following illustrations. Amongst these the Gardener Bower-bird (*Amblyornis inornata*) and its playing-place is of special interest :—

Craspedophora magnifica.
Paradisea apoda.
Amblyornis inornata.
Cyclopsitta diophthalma.
„ aruensis.
Pitta concinna.
Ptilopus speciosus.
„ bellus.
„ rivolii.
Arses insularis.
Pachycephala schlegeli.
Dicæum geelvinkianum.

59. *Hooker and Ball's Tour in Marocco.*

[Journal of a Tour in Marocco and the Great Atlas by Joseph Dalton Hooker, K.C.S.I., C.B., and John Ball, F.R.S., M.R.I.A., with an Appendix, including a sketch of the Geology of Marocco, by George Maw, F.L.S., F.G.S. 8vo. London, 1878.]

The narrative of the expedition to the Great Atlas, made by Sir Joseph Hooker, Mr. Maw, and Mr. Ball in April and May 1871, although principally relating to botanical discoveries, contains much that is of interest to the general naturalist. One fact recorded is, we believe, new in ornithology; that is, the occurence of the House-Bunting, *Fringillaria saharæ,* in the city of Marocco. "During our meals," say the authors, "which were always taken in the central saloon, open to the sky, these birds would boldly alight beside us and pick up the crumbs that were sometimes purposely scattered for their benefit."

60. *Lawrence on the Birds of Grenada.*

[Catalogue of the Birds of Grenada, from a collection made by Mr. Fred. A. Ober for the Smithsonian Institution, including others seen by him, but not obtained. By George N. Lawrence. Proc. U.S. Nat. Mus. 1878, p. 265.]

Examples of 54 species were obtained by Mr. Ober in Grenada, which seems to betray affinity with the mainland rather than with the other Antilles to the north as regards its avifauna. "There is no Parrot, and the two Thrushes *Margarops densirostris* and *M. montanus* do not exist here." The Humming-bird is *Glaucus hirsutus* instead of *Eulampis jugularis*; but *E. holosericeus* and *Orthorhynchus cristatus* also occur here. The peculiar species are *Turdus caribbæus* (which, however, judging from the type specimen kindly sent to us by Mr. Lawrence for examination, we should not venture to separate from *T. gymnogenys* of Venezuela and Trinidad), *Thryothorus grenadensis,* and *Quiscalus luminosus.* These three species have already been described by Mr. Lawrence*. The "Sour-sop Bird" (*Calliste versicolor,* Lawrence) is everywhere "abundant and resident;" in St. Vincent it was "only in small numbers and solely in the mountains." [In our opinion *Calliste versicolor* is = *C. cucullata,* Swainson.]

61. *Merriam on the Birds of Connecticut.*

[A Review of the Birds of Connecticut. With remarks on their habits. By C. Hart Merriam. Trans. Connect. Acad. iv. p. 1.]

After some general remarks on the extent of the State and on previous authorities, Mr. Merriam gives a general list of the birds, mentioning their times of occurrence and relative abundance, and adding notes on the habits and distribution of some of the less common forms. Altogether 291 species are recognized as occurring within the limits of Connecticut. Mr. Merriam adds, in a tabular form, lists of the residents, summer and winter visitants, and accidental visitors, and a list of previous authorities on the birds of New England.

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* Ann. N.Y. Acad. of Sc. vol. i. pp. 160–162.

62. *Meyer on the Sexes of* Eclectus.

[Noch einmal die Geschlechtsverschiedenheiten in der Papageiengattung *Eclectus* (Wagler). Zool. Garten, Jahrg. xix.

Dr. A. B. Meyer replies to some observations made by Herr von Rosenberg in a former number of 'Der zoologische Garten,' and shows that the evidence is now overwhelming in favour of the view that the green and red *Eclecti* are males and females of the same species.

63. *Moseley's 'Naturalist on the Challenger.'*

[Notes by a Naturalist on the 'Challenger,' being an account of various Observations made during the Voyage of H.M.S. 'Challenger' round the World in the years 1872–76, under the command of Sir G. S. Nares, R.N., K.C.B., and Capt. F. T. Thomson, R.N. By H. N. Moseley, M.A., F.R.S. 8vo: London, 1879.]

No naturalist should omit to read Mr. Moseley's 'Notes.' They will be found to be replete with interest in every branch of biology. To the ornithologist the accounts of the breeding-places of the Penguins, Noddies, Boobies, and Albatrosses and other oceanic birds will be especially agreeable. That *Pelecanus fuscus* is good for food is new to us (p. 15). The scientific names of the birds are not always correctly given*, and require revision in a second edition.

64. *Müller on the Vocal Organs of the Passeres.*

[Johannes Müller on certain Variations in the Vocal Organs of the *Passeres* that have hitherto escaped notice, the translation by F. Jeffrey Bell, B.A. Edited, with an Appendix, by A. H. Garrod, M.A. 4to: Oxford, 1878.]

This well-known and most important memoir is now rendered easily accessible to English ornithologists, and enriched by the addition of a valuable Appendix by Prof. Garrod, who has recently devoted so much attention to the structure of the vocal organs of Birds and to other details of their anatomy. In the Appendix Prof. Garrod discusses the peculiar characters of the Passeres and of their subdivisions, and describes the vocal organs (unknown to Müller) of *Pitta, Coracina* (after Burmeister), *Hylactes, Grallaria, Lipaugus, Heteropelma, Hadrostomus, Menura,* and *Atrichia.* Two additional plates are given to illustrate the *syringes* of these forms. This is altogether an excellent piece of work.

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* *E.g.* see pp. 53, 55.

65. *Newton on Hawking in Norfolk.*

[Hawking in Norfolk. By Alfred Newton, M.A., F.R.S. Reprinted from Lubbock's 'Fauna of Norfolk,' 2nd edition.]

Prof. Newton's aim in these notes is to supplement the account of hawking in Norfolk given in Lubbock's 'Fauna' and Stevenson's 'Birds of Norfolk.' Extracts are given from the "Paston letters" (1472), and from the MSS. of Von Vendenheym, who hawked with James 1st in 1610, and other writers. Finally some account is added of the hawking adventures of the late Mr. Edward Clough Newcome, of Feltwell Hall, and of the B. O. Union, who was so well known to many of us for his devotion to this almost extinct sport.

66. *Oustalet on a new Bronze Starling.*

[Note sur une nouvelle espèce de Merle bronzé, par M. E. Oustalet. Assoc. Scient. de France, Bull. no. 580, 1878.]

The new species, from the Loss Islands, south of Senegambia, about 9° north latitude, is called *Lamprocolius iris,* and the new subgenus *Coccycolius* proposed for it, from its exterior resemblance to *Chrysococcyx.* The type is in the Jardin des Plantes.

67. *Pelzeln's Report on the Progress of Ornithology in* 1877.

[Bericht über die Leistungen in der Naturgeschichte der Vögel während des Jahres 1877. Von August von Pelzeln. Wiegm. Arch. xxxxiv. pp. 1–80.]

Of Herr v. Pelzeln's Report on the ornithological literature of 1877 we have only to say that we have read it with the greatest interest, and commend it to the notice of all our fellow-workers.

68. *Ramsay on a new* Ptilotis.

[Description of a new Species of *Ptilotis* from Torres Straits. By E. P. Ramsay. Proc. Linn. Soc. N. S. W. vol. iii. p. 2.]

Ptilotis germana, near to *P. ornatus,* Gould, and to *P. flavescens,* Gould. Neither collector nor exact locality are stated.

69. *Ramsay on a new* Myiolestes.

[Description of a Species of *Myiolestes,* from Fiji. By E. P. Ramsay. Proc. Linn. Soc. N. S. W. vol. iii. p. 12.]

The bird described is *M. nigrogularis,* which is stated in a footnote to be the same as *Lalage nigrogularis* of Layard.

70. *Ramsay on new Birds from Torres Straits and New Guinea.*

[Descriptions of five species of new Birds from Torres Straits and New Guinea, &c. By E. P. Ramsay. Proc. Linn. Soc. N. S. W. vol. iii. p. 72.]

The new species are :—" *Lorius hypœnochrous,* var.," or, if distinct, *L. gulielmi* from Cloudy Bay, New Guinea [this is *L. erythrothorax* of Salvadori, see above, p. 320]; *Pitta novæ-hibernicæ* (sic !) from New Britain [this is not different from *P. mackloti,* cf. Scl. P. Z. S. 1877, p. 99, and Salvadori, above, p. 324]; *Pachycephala fuliginata* (!), from S.E. coast of New Guinea; *P. collaris,* from Courtance Island, S.E. coast of New Guinea; and *Stigmatops albo-auricularis* from S.E. coast of New Guinea.

71. *Ramsay on Birds from New Guinea.*

[Contributions to the Zoology of New Guinea. Parts i. & ii. By E. P. Ramsay, F.L.S. &c. Proc. Linn. Soc. N. S. W. vol. iii. part 3.]

This paper contains notes on the collection made by Mr. Alexander Morton, who accompanied Mr. Goldie's second expedition to New Guinea, also upon the collection made by Mr. Goldie himself and his collectors, Messrs. Shaw and Blunden. A portion of the collections made by Mr. Ingham and Mr. Kendal Broadbent, upon the south-east coast, have also been examined, and a few additional species thus enumerated. The total number of birds thus examined is about 2500.

The species catalogued are 202 in number, of which there appear to be eleven now described for the first time—namely *Ninox albomaculata*, *N. undulata*, *Aprosmictus chloropterus*, *Tanysiptera salvadoriana*, *Rhipidura castaneothorax*, *R. ambusta*, *Eopsaltria placens*, *Zosterops longirostris*, *Parra novæguineæ*, *Eupetes goldiei*, and *Micrœca albofrontata*. On these new species and other points we refer our readers to Prof. Salvadori's article (*anteà*, p. 317) and Mr. Sharpe's letter (below, p. 367).

72. *Reichenow's Catalogue of the Bird-show of the "*Ægintha.*"*

[Catalog zur vierten Ausstellung der "Ægintha" Verein der Vögelfreunde in Berlin vom 22. bis 26. November 1878 in den Reichshallen, Leipziger Strasse 77. Zusammengestellt von Dr. Ant. Reichenow. 8vo: Berlin, 1878.]

The fourth Annual Exhibition of the "Ægintha" was held in Berlin in November last; and Dr. Reichenow gives us a catalogue of the exhibition. The living birds are arranged under three principal heads—Canaries, Foreign Birds, and Native Birds, and appear to have consisted of about 2030 individuals. Besides these there were cages, nesting-boxes, and other utensils, and a few stuffed birds.

73. *Rosenberg's 'Malay Archipelago.'*

[Die Malayische Archipel, Land und Leute, in Schilderungen, gesammelt während eines dreissigjährigen Aufenthaltes in den Kolonien: von C. B. H. von Rosenberg, mit zahlreichen Illustrationen zumeist nach den Originalen des Verfassers und einem Vorwort von Professor P. J. Veth in Leiden. Abth. i.–iii. 8vo: Leipzig, 1878–79.]

This volume gives a connected account of the observations made by Herr C. B. H. von Rosenberg, so well known for his ornithological discoveries, during his thirty years' service in the Dutch East Indies. It contains many references to birds; and in an appendix the characters of the new species discovered by the author, and mostly described by Prof. Schlegel in the 'Musée des Pays-Bas,' are inserted. Sumatra, Celebes, the Moluccas, New Guinea, and Java, with their dependencies, are described successively, and remarks on their Mammals and Birds given in each case.

74. *Reinhardt on a new Mitua.*

[En ny *Mitua*-Art. Af J. Reinhardt. Vid. Medd. Naturh. Forening i Kjöbenhavn, 1879–80.]

The new species, which is proposed to be called *Mitua salvini*, is based upon a female specimen lately living in the Zoological Gardens in Copenhagen, but now preserved in the University Museum. It differs from both the known species of *Mitua* in having the belly white. The bird was received from Bahia in 1876; but its exact locality is unascertained. (*Cf.* Sclater, P. Z. S., 1879, p. 108.)

75. *Reinhardt on a Bird new to Greenland.*

[En for Grönland ny Fugl. Af J. Reinhardt. Vid. Medd. Naturh. Forening i Kjöbenhavn, 1879–80.]

Prof. Reinhardt records the occurrence of the Common Scoter (*Oidemia fusca*) in Greenland, on the faith of an example obtained near Godthaab, and now in the Copenhagen Museum. By far the greater number of stragglers in Greenland being American species, *O. velvetina* might have been rather expected to have occurred there; but this example is decidedly *O. fusca.*

76. *Sharpe's Catalogue of Birds in the British Museum.*

[Catalogue of the Birds in the British Museum. Vol. iv. Campophagidæ and Muscicapidæ. By R. Bowdler Sharpe. 8vo, pp. 495. London, 1879.]

In his fourth volume, Mr. Sharpe commences the second group of his Passeriformes—the Cichlomorphæ of Sundevall, which he proposes to divide into six families, namely Campophagidæ, Muscicapidæ, Turdidæ, Timeliidæ, Laniidæ, and Paridæ. Of these the first two are catalogued in the present volume. The total number of species recognized is 539, of which 443 are represented in the collection of the British

Museum. The Campophagidæ are divided into 10 genera (108 species), the Muscicapidæ into 69 genera (391 species). The new species described are *Campophaga polioptera* from Cochin China, *Rhipidura erythronota* and *R. rufo-lateralis* from the Fijis, *Myiagra goramensis* from Goram, *Piezorhynchus morotensis* from Morty Island, and *Siphia sumatrensis* from Sumatra. The new genera proposed are *Erythromyias* (*Saxicola dumetoria*, Wallace), *Poliomyias* (*Motacilla luteola*, Pallas), *Heteromyias* (*Pœcilodryas cinereifrons*, Ramsay), *Æthomyias* (*Entomophila spilodera*, Gray), *Neomyias* (*Rhipidura euryura*, Müller), and *Rhinomyias* (*Alcippe pectoralis*, Salvadori). All the three British Flycatchers are placed under *Muscicapa*. To find *Pratincola* and *Malurus* among the Muscicapidæ will be a surprise to many; but Mr. Sharpe tells us that in this family "the characters of definition are most obscure." Fourteen plates, drawn by Keulemans, conclude the volume.

77. *Sharpe on the Birds collected by Dr. A. B. Meyer in New Guinea.*

[On the Collection of Birds made by Dr. Meyer during his expedition to New Guinea and some neighbouring Islands. By R. Bowdler Sharpe. Mitth. d. kgl. zool. Mus. Dresden, 1878, Heft 3.]

This memoir contains the results of the author's examination of the Accipitres, Dicruridæ, and Campophagidæ collected by Dr. Meyer. The Accipitres were 39, belonging to 18 species. *Harpyopsis novæ-guineæ* and *Astur etorques* are figured. The Dicruridæ were 50, of 5 species. Of the Campophagidæ a general review is given, and the following species are described as new :—*Artamides schistaceus*, from the Sula Islands; *A. floris* from Flores; *Graucalus subalaris* from S.E. New Guinea; *Edoliisoma salvadorii* from Great Sangi Island; *E. aruense* from the Aru Islands; *E. timoriense* from Timor; *E. remotum* from New Hanover; *Campophaga polioptera* from Cochin China, and *Lalage whitmeei* from Savage Island. Of these only the *Graucalus* and *Edoliosoma salvadorii* are from Dr. Meyer's collection; so that the title of the paper is, in this respect, somewhat misleading. *Graucalus maforensis* is figured.

XXXIII.—*Letters, Announcements, &c.*

We have received the following letters, addressed to the Editors of 'The Ibis:'—

Sirs,—In the notice published in the April number of 'The Ibis,' p. 213, on my paper on the subgenus *Globicera*, it is stated that, of the *Globicera* section of the genus *Carpophaga*, I recognize seven species, all of which, with one exception, are found in the islands of the Pacific Ocean. The reviewer also says that "*C. myristicivora* has a more western range than the other six species, frequenting *nearly the entire New-Guinea area*, including many of the adjoining islands." As to the last statement the reviewer is quite in error. I have stated in the most distinct way that *C. myristicivora*, from what we know, inhabits, besides the western islands of Salwatty, Batanta, Mysol, Waigiou, Rawak, Ghemien, Gagie, and Guebéh, the *west coast of the northern peninsula* of New Guinea; from no other place in New Guinea but Sorong have I seen *C. myristicivora*. As to the other six species, one, *C. pacifica*, inhabits nearly all the islands between Savage Island (to the east of the Friendly Islands) and the *eastern* Papuan islands, as far as D'Urville Island on the northern coast of New Guinea; *C. rubricera* and *C. rufigula* live in the eastern Papuan islands; and only the remaining three species are confined to one or another group of the Polynesian islands—that is, *C. oceanica* to the Caroline and Pelew Islands, *C. auroræ* and *C. wilkesi* to Aurora Island and Tahiti, both of the Society group, respectively.

Yours &c.,
T. Salvadori.

Sirs,—The receipt by the last mail of the 'Zoological Proceedings' for 1876, part 3, sent me at once to identify, by the light of my friend Howard Saunders's lucid paper "On the Sterninæ," the "Noddies" I obtained in Fiji. I at once saw that the bird which, guided by Finsch and Hartlaub's 'Fauna Centralpolynesiens,' I have always identified as *Anous* *leucocapillus*, Gould, is not that bird, but the *A. melanogenys* of Gray. All notices therefore of the "Noddy" under the former name in my writings on the birds of Fiji must be read as for the latter species.

My identification of *A. stolidus,* obtained during the hurricane on Turtle Island, is correct.

Of the true *A. leucocapillus,* Gould, I have a fine specimen obtained off New Britain. None of my specimens, however, are as light as those figured by Mr. Saunders. The sooty colour is darker, the black marks about the eyes are intensely black; and the top of the head (the cap) is coloured as in fig. 1 of his plate.

A careful revision of the other Gulls procured shows me that they are all rightly determined.

I may add that we have recently obtained a specimen of *Sterna melanauchen,* Temm., in non-breeding plumage on the islands off Noumea. It fell to my son's gun among a flock of *S. gracilis.*

Add to Mr. Saunders's remarks on *Sterna nereis,* Gould (p. 663), that it breeds in New Caledonia.

The birds procured on Fiji and identified as *Sterna panaya* (=*anæstheta,* Scop.), show the peculiarity of the webbing in the foot figured by Mr. Saunders (p. 665).

The *Gygis alba* (=*candida*) procured at Eooa (Tongatabu) accords with the head of that species as figured (p. 668).

Sterna bergii, Licht., was obtained in all stages, mottled, young, and adults (♂ and ♀), breeding and non-breeding. We have it here also.

Yours &c.,
E. L. Layard.

Noumea, New Caledonia,
January 22, 1879.

Sirs,—Being in possession of a pair of living examples of that rare Parrot, *Lorius chlorocercus,* Gould, perhaps a few notes on their habits may not be uninteresting to some of your readers.

My pair are supposed to be male and female, and are quite young birds, although fully fledged. Mr. James Masler, the mate of a vessel plying to the Solomon Islands, who presented them to me in return for some kindness which he alleges I showed him in Fiji, states that they were procured by the natives of Savai (one of the Solomon group) from a hole in a tree, both from the same nest, and that they are male and female. I observe that the bird we call the male has a small elongated spot of red feathers on the bare black space in a line between the top of the eye and the nostril. He is also the master of the other, and much the noisiest and most active, answering to our call, and filling the air with his numerous notes. Whether all these are natural or, in part, artificial, I do not know; some of them bear a wonderful resemblance to the words "Joey," or "pretty Joey," by which names Marler had christened them. He also pipes a long shrill whistle, and has numerous other flute-like notes, and sounds as of a hearty "kiss" being given. We have never heard the female say "Joey;" and she is generally more silent than the male. The iris is pale brick-red; and between that and the black pupil is a narrow white circle.

Mr. Marler kept these birds three months in a small cage made out of an old gin-case; I have had them two more in a large airy cage built on purpose. When they first entered it they could not use their wings in the least, could not even reach the centre perch from the wire sides to which they clung. They seldom use the wings now, but sometimes stand on their perch and vibrate them with wonderful rapidity. This makes me think that their flight when at liberty would be very swift.

They rarely descend to the lower perches, except for food, and never by any chance touch the ground, except from a fall when fighting; and then they scramble up again as soon as they can. In their wild state they never descend to the earth.

They feed on bread soaked in sugar and water (drinking large quantities of the latter well sweetened), potatoes, a little boiled rice, ripe pawpaw fruit, and especially boiled yams. For a long time we apprehended they would starve rather than go to the ground for their food; so I hit on the device of hanging it to a wire swinging loose in the cage. To this they instantly resorted, holding it steady with one foot, and tearing it with their bills. They are very wasteful, throwing down large pieces; and only rarely will they reach, head down, from a perch to recover a fallen lump, which they then hold in their claws, mutually feeding from the same morsel.

They hang and feed in any position, holding sometimes by one foot and twisting round in every direction. Often in their play or battles they will simultaneously grasp claws and struggle to upset each other.

The male, though allowing himself to be handled by my son, showed from the first an unbounded antipathy to a servant-girl, attacking her with bill and claws, accompanied by piercing cries, whenever she approaches the cage. The girl says all parrots show this antipathy to her.

When drinking they lap their sugar and water with great rapidity. Their bills are slightly immersed, and kept somewhat open; and between the mandibles the tongue may be seen swiftly protruded and withdrawn.

If they wish to cross one another on the perch, the female performs a rapid evolution, throwing herself underneath, and coming up on the other side, without losing her hold, describing a circle in fact, the male passing through the centre while she is below him.

E. L. Layard.

Noumea, January 20, 1879.

British Museum, May 1, 1879.

Sirs, I have just received, within the last week, a copy of Mr. E. P. Ramsay's paper entitled "Contributions to the Zoology of New Guinea," parts 1 and 2, which was read by him before the Linnæan Society of New South Wales on the 30th September, 1878. In this paper I find that two species published by me in the April number of the 'Annals,' *Aprosmictus broadbenti* and *Pœcilodryas flavicincta*, have been described by Mr. Ramsay as *Aprosmictus chloropterus* and *Eo-*

psaltria placens. It is very much to be regretted that a new species cannot come from such an out-of-the way place as South-eastern New Guinea without being burdened at once with useless synonyms. It is the more annoying in the present instance, as Mr. Broadbent's collection was sold to the British Museum with a distinct understanding that it was a direct consignment to England, and that no portion of it had been distributed elsewhere. It would appear, however, from Mr. Ramsay's paper, that most of his supposed novelties were the result of Mr. Broadbent's exertions. I trust that my brother ornithologists will accept my assurances that, had I suspected that any portion of the collection had been sent to Sydney, I should have held my hand before writing about the series in the Museum, and should have waited for Mr. Ramsay's paper. The latter arrived, unfortunately, too late for me to stop the publication of my diagnoses in the 'Annals.'

Most of the species described by Mr. Ramsay will, I think, be found to possess names already; and, at the request of my friend Count Salvadori, I have given him my opinion upon the majority of these supposed novelties*.

I am &c.,

R. BOWDLER SHARPE.

British Museum, May 5, 1879.

SIRS—By an oversight I have named a Flycatcher in the fourth volume of the 'Catalogue of Birds,' p. 311, *Rhipidura saturata*, from Tasmania, without noticing that this name is already occupied by Count Salvadori (Ann. Mus. Civic. Gen. xii. p. 323). I wish therefore to call the Tasmanian bird *Rhipidura diemenensis*.

I am &c.,

R. BOWDLER SHARPE.

Brighton, March 7.

SIRS,—A residence of some months in Brighton has given me unusual opportunities of investigating three forms of

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* *Cf.* Salvadori, *suprà*, p. 317.

British birds, to none of which does Mr. Dresser give adequate, much less separate, notice in his admirable work, now approaching its completion, the 'Birds of Europe.' These three are the large form of *Saxicola œnanthe,* the small form of *Ægialitis hiaticula,* and the red-breasted form of *Anthus obscurus.*

As regards the Wheatear, Mr. Dresser says, "ornithologists living on the south coast of England say that the birds which arrive first vary in size from those that arrive later; *but* I find that the size of examples from various localities varies considerably," &c. I confess I fail to see the force of this "but" as neutralizing the undoubted results of observations by several ornithologists, Mr. Gould, Mr. E. T. Booth, and others. Whatever may be the variations in the size of *S. œnanthe,* if we take its whole range from Greenland to Egypt, it is quite certain that on our south coast it is sharply divided into two races, the larger of which is not seen till late in April, and oftener not till May. Gould found it in May on the Kentish coast; Schlegel found it in May on the opposite coast; and the only one I ever saw in Kent was on the 1st of May. Now Mr. Dresser does not even say which race arrives first; still less does he give dates, and much less does he acknowledge that there are other differences. But Mr. E. T. Booth and other authorities on the larger race agree in saying that it is a much more arboreal bird than the other, which I can corroborate; for the Kentish specimen above alluded to was shot from the top of a high walnut-tree. But, besides this, it retains a rich reddish buff throat and breast in May, while the smaller bird has the same parts pale buff.

It is the same as regards Mr. Dresser and the smaller Ring-Dottrel, and again with the Vinous-breasted Rock-Pipit. Mr. Dresser assumes that the small size of the former and the vinous breast of the other are the *only* marks of distinction. Now the lesser Ring-Plover is distinctly darker on the upper surface, as has been repeatedly pointed out in 'The Ibis;' and the legs are of a deeper shade of orange. Mr. Dresser does not mention the fact that it is only a summer migrant to these shores, arriving in May, when the large form is already breeding. He also instances the fact of a Red-Sea specimen agreeing in size with a small Sussex specimen, rather as if that disproved the existence of a smaller race. I do not quite see that; for as the smaller bird does not stay with us in the winter, but arrives in May, it is obviously a southern bird, and in point of fact has been recorded as occurring in Egypt, Malta, Natal, India, South China, and Hainan. There is therefore nothing surprising in a Red-Sea specimen agreeing with a small Sussex specimen. Mr. Dresser adds that his Egyptian examples agree with our British *species,* which leaves it open to doubt whether they are small in size or dark in colour. Shelley considers that the small dark form prevails to the exclusion of the other in Egypt. Those I saw at Damietta last spring were decidedly dark in colour compared with those I found in Iceland and Sutherland.

Lastly, as regards the vinous-breasted form of Rock-Pipit, Mr. Dresser figures what he calls a very fine specimen of the vinous-breasted variety in his plate; but to my eye the colouring is dull buff, not vinous at all. A really good specimen has the breast bright rosy, as may be seen in Mr. Booth's museum at Brighton. But there is another strong point of distinction in this form, viz. the grey tinge of the head and nape in spring. Many of the back-feathers are also washed with slaty grey, particularly towards the rump. Apart from this, I doubt the Rock-Pipit's ever being of such a clear pale greyish olive above, or so thinly spotted below as the *Anthus rupestris,* although Mr. Dresser and Mr. Booth unite in affirming that *A. rupestris* and *A. obscurus* are undistinguishable in winter plumage. I have an *A. rupestris* distinguishable by traces of grey in the upper plumage, but with no vinous colouring on the breast; and this bird differs most conspicuously from a true Rock-Pipit, which, if not in winter, is, at any rate, not in strong summer plumage. The *A. rupestris* is a pale greyish-olive bird, with faint traces of slaty grey on the head and back, and the breast distinctly striped on a whitish ground, while the *A. obscurus* is a brownish-olive bird, almost as brown as a Thrush, and thickly, almost continuously striped on the breast. The contrast is very strong indeed, though possibly other specimens may come nearer together.

To speak generally, and not specially of Ring-Plovers, Wheatears, or Rock-Pipits, I cannot see that any reason exists for ignoring or slurring over well-marked races of birds, whether one is a "lumper" or "splitter." Not one of the three forms I have specified has been properly described by Mr. Dresser. Surely any considerable homogeneous body of individuals breeding together and flocking together (as a rule), apart from their congeners, is worthy of *some* recognition and description if not of a Latin name! and what matter if they breed with the nearest forms, as *Corvus corone* with *C. cornix*, or vary towards them?

It may be asked, What is the real scientific value of the information that Mr. Dresser, or somebody else, has "united" two very different forms, because intermediate varieties have been found, or because the winter plumages are similar, &c.?

To this I reply that to say that one bird is a form of another, which we have strictly defined to be different, is, I fancy, illogical to begin with: but it is also unscientific; for modern zoology tends to show that one nearly allied form is as good as another, both being equally descended from some primitive type. Why, then, these often-attempted suppressions of well-marked forms?

Yours &c.,

CLIFTON.

Cobham Hall, May 3.

SIRS,—Having visited the north of Iceland last summer, I am induced to send you a few notes on the birds I saw there.

I observed a good many birds on the voyages out and home, such as the Common, Herring-, Kittiwake, and Lesser Black-backed Gulls, Common and Arctic Terns, Greater and Manx Shearwaters, Stormy Petrels, Fulmars, Great, Pomatorhine and Buffon's Skuas, Puffins, Arctic Puffins, Guillemots, Brünnich's Guillemots, Black Guillemots, Cormorants, Gannets, and Little Auks. In one instance I saw a Ringed Plover hotly pursued by a Skua; and we once had as many as eleven of the little Buffon's Skuas round the ship. Unfortunately I omitted to note the latitude in which I met with all these sea-birds. I am pretty sure, however, that the Kittiwake was the only Gull I saw in Icelandic seas. After I landed I met with the Great Black-backed Gull, and I think I once saw an immature Ivory Gull. It was singular that I never once saw a Black-headed Gull on either voyage. I did not meet with the Common Tern after leaving British waters. Fulmars were very common round Iceland. Once I thought I saw a Storm-Petrel, but not, I think, near Iceland. The Great Skua was the only Skua that I saw off the coast of Iceland; but I saw Buffon's Skua at no great distance, and Richardson's Skua was common on land: I found a fragment of an egg, but could not find the nest. The large Puffin with dark grey cheeks was the only form seen near Iceland; and, curiously enough, I did not see a single thin-billed Guillemot in those waters; they were all the thick-billed Brünnich's Guillemot. With a good glass the whitish ridge of the upper mandible was clearly visible. I saw no Razorbills at all, and no Cormorants anywhere near Iceland. Gannets were common nearly everywhere; and I saw one or two Little Auks off the coast. I did not see any Shearwaters very near Iceland; but I saw two sorts—one large and deep brown, and the other smaller and blacker: I have little doubt these were the Greater and Manx Shearwaters. Black Guillemots were very abundant in Icelandic waters.

On land I only visited two localities, at no distance from each other—Melstade and Borg—a little east of where the north-western peninsula, somewhat resembling Britain in shape, juts out from the mainland. Of birds of prey I saw two pairs of Sea-Eagles (they are said to watch the shallows for salmon), two Iceland Falcons, and a Merlin or two. I once saw a Merlin on the gable-end of Melstade church. The Snow-Bunting was very common, and the Wheatear, White Wagtail, and Meadow-Pipit fairly so. I thought the last-named seemed rather grey and mealy in plumage. The Raven was common, as also the Rock-Ptarmigan, which had "spreaker" young ones, able to fly before we left at the end of July. (My companion, I should have said, was the Hon.

G. N. Dawnay.) The Golden Plover was, of course, numerous; but I only succeeded in finding one lot of eggs. Ringed Plovers were fairly common in suitable places. I only saw one Turnstone, and one or two pairs of Oystercatchers. Redshanks and Purple Sandpipers were common; and I found a nest of the latter on high ground, containing three young ones just hatched, and an egg on the point of hatching. All these nests were found in July, we having arrived in Iceland just at the end of June. I saw a single pair of the Grey Phalarope as we steamed up the fiord to Bordeyei. On shore Red-necked Phalaropes were very abundant; but I could not find a nest. Snipes were fairly common; and their bleating, which I heard for the first time, was incessant. When drumming they seemed always to make the downward sweep to the right. Is this always so, I wonder? Dunlins were in extraordinary abundance, and they struck me as being very small and grey in colour—the small race, no doubt. Their habit of acting page to the Golden Plovers was well illustrated.

The Whimbrel was in great numbers; but I could not find a nest either of this bird or the Redshank and Dunlin. We found one Snipe's nest with eggs and a single young one just hatched. We also saw some Ringed Plover just hatched, and one or two young Whimbrels a few weeks old. Geese we saw nothing of, as we did not go high enough up the hills, but we saw several pairs and small parties of Hoopers, one single bird allowing quite a near approach.

I found a lot of Teal in an inland pool, where there was plenty of covert; and there were one or two broods in the pools near the mouth of the Melstade river. These pools in the low grounds were splendid places for birds. There were as many as forty-one Wild Ducks in one flock there, besides broods; also Eiders, Pintails, Long-tailed Ducks, and Harlequin Ducks, all with young broods. We saw one small flock of Harlequins, chiefly males. The croak of the female bird is very harsh. We saw a few Scaups, and at least one Scoter. Dawnay described one Duck which he saw on the river as black with white on the wing; but it also had white on the head; so I suppose it would not do for the Velvet Scoter.

Possibly it was a dark specimen of the Icelandic Golden-eye, a bird which I failed to see myself. Mergansers were common; and in the flocks I thought I saw a few Goosanders. Two pairs of Horned Grebes, and numerous Northern and Red-throated Divers complete my list. I saw one young one of the last species. There being no trees or bushes whatever where we were, we had no chance of seeing the Redwing Mealy Redpoll, or Northern Wren. One curious circumstance I noticed was a male Scaup keeping company with a female Long-tail; but whether they had bred together was more than there was evidence to show. The Arctic Terns, of which we saw many eggs, were very bold, and one struck me hard with its bill. A great panic in their ranks one day led me to notice an Iceland Falcon flying along. Our friends Messrs. H. Tollemache and A. Hay Gordon, who went to the Laxa river, found the Iceland Golden-eye pretty numerous. Golden Plovers, well stewed, a young wild Duck and an old one, and a young Pintail, formed welcome additions to our diet of preserved meat &c.; but a Whimbrel proved tough and inedible. We were much struck by the height at which the Northern Divers flew. Frequently we should have failed to see them but for their rattling *kak-kak-kak*, resembling the noise which Herons make sometimes. The wild trumpet-like laugh of the Long-tailed Ducks was very striking. It is just like a man imitating a bugle-call, and is the last sound one expects a Duck to make. The favourite note of the Red-throated Diver is a sort of *heugh*, like a horse sneezing. Altogether, though not rich in species, Iceland is a splendid country wherein to study the habits of Snipes, Golden Plovers, Dunlins, Swans, Ducks, Divers, &c., which rarely, if ever, are to be found breeding near one's home in England. What with Swans, Richardson's Skuas, Divers, and Long-tailed Ducks, the variety of strange cries is very rich.

I would only add that, if the small Dunlin is really pale in colour when the large Dunlin is red, then there is a hitherto unnoticed difference between the races.

Yours &c.,

Clifton.

Sirs,—I notice that in the April number of 'The Ibis' Mr. Henry Seebohm, referring to the Curlew Sandpiper, makes the remark—"The eggs of this bird and those of the Knot are now the two great prizes left for *British* oologists to try and secure." Unfortunately for British enterprise, this has not been left for our cousins to "secure." One of my own countrymen—perhaps not aware that matters had been thus arranged, but supposing the right of discovery an open one, and not exclusively that of the sons of "the fast-anchored isle"—has committed the indiscretion of discovering the eggs of *Tringa subarquata*.

Mr. Ludwig Kumlien, Naturalist to the Expedition sent to the Cumberland region, was so fortunate as to find the Curlew Sandpiper breeding in North Greenland, near Christianshaft, in the summer of 1878. He mentions the species as not uncommon. Several eggs were procured, through the attentions of Governor Fencken. Two examples of the eggs were brought home by Mr. Kumlien; and these are now in the collection of the Smithsonian Institution. During a recent visit to Washington I availed myself of the opportunity to examine these specimens; and from the notes then taken I send you the following description:—

One of these eggs measured 1·52 inch in length by 1·05 inch in its greatest breadth. Its ground-colour is thickly marked with blotches of two shades of umber-brown; one of these shades is quite light, the other much darker. These are most numerous on and around the larger end, and are in a somewhat longitudinal direction, with a tendency also to a spiral course. There are also a few spots of a very dark (almost a black) colour on the larger end.

The other egg measures 1·47 inch by 1·04 inch, and is of a much more pyriform shape. Its ground-colour is a very light greenish drab, with rather sparse markings of a deep umber. The markings are larger and more confluent about the greater end of the egg, where they are chiefly disposed in a circular ring. The rest of the egg is sparsely marked with the same. About the larger end are a few very dark markings.

The two eggs, as you will notice, differ somewhat in their shape, and present also something of a contrast in their ground-colours.

233 Beacon Street, Boston. THOMAS M. BREWER.

P.S.—The readers of 'The Ibis' may be interested to know that Dr. James C. Merrill, Surgeon in the U.S. Army, who gave us such an interesting paper on the birds of the Rio Grande valley, in Texas, has changed his quarters to new and almost equally promising fields for research. These are to the very upper waters of the Missouri, in Northern Montana. His station is Fort Shaw, situated on a high plateau, at an elevation of some 5000 feet, and close to the eastern slope of the Rocky Mountains. While we cannot expect him to add so many new species to our fauna, he will doubtless do much that is much more desirable—throw light upon the movements and habits of many species which are known to us almost wholly by name and dress alone. Fort Shaw is our most northern outpost, and is not far from the border-line.

SIRS,—I beg you to find room in 'The Ibis' for the following notes on the recent rediscovery of *Notornis mantelli*, and on two Cassowaries living now in the Imperial Menagery at Schoenbrunn.

Herr Hofrath von Hochstetter has had the kindness to communicate to me a letter received from Dr. J. von Haast, in which the latter announced that at Lake Te Cluan a specimen of *Notornis* had been caught by dogs. Dr. von Haast had already arranged an expedition to get the rare bird; Dr. W. Buller and the taxidermist Reischell will accompany him. He is now quite sure that a bird seen by him at a great distance on a former occasion was the *Notornis*.

The rich series of living animals brought last summer by Herr Kraus, the indefatigable traveller and collector, from a voyage to Sumatra and Java, which now adorns the Imperial Menagery at Schoenbrunn, contains two young Cassowaries, which I believe to belong undoubtedly to *Casuarius beccarii*, Sclater*. They are considerably smaller than *C. galeatus*; the casque is as yet little elevated; the plumage black, but with some remnants of brownish colour; the head is light greenish blue; the neck deep blue; the nuchal patch orange, a maxillary stripe yellow; the two short appendices of the hardly conspicuous caruncle are white, washed with blue.

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* P. Z. S. 1875, pp. 87 & 527, pl. lviii.

These birds were presented to the Emperor by the Javan Prince Manghohe Megoro IV. and his son, Prince Gondhoe Sigwojo; they were bought in a harbour of Java or Sumatra; and the Princes asserted that they had been brought from Timor.

Should this habitat be correct it would be a fact of great interest for geographical distribution, as at present no species of Cassowary from the island of Timor is known.

It is also not without interest that the Javan Princes remarked that Timor in former times was in connexion with the Australian continent.

The specimens at Schoenbrunn agree very well with the bird described and figured by Mr. Sclater* in the year 1875, which was transmitted to the Zoological Society of London by Sir James Fergusson from New Zealand. This specimen was, when very young, together with a similar one, obtained in 1873 by the officers of H.M.S. 'Basilisk' from the natives of Touan, or Cornwallis Island, in the Torres Straits, four miles from the south coast of New Guinea, seventy miles from the opposite coast of Cape York. The natives said that they had caught the bird on the coast of New Guinea.

Mr. Sclater† believed it probable that this Cassowary would belong to *C. salvadorii*, Oustalet; but more recently he seems of the opinion that the last-named bird would be not specifically different from *C. beccarii*‡.

The specimens at Schoenbrunn are also (allowing for their difference of age) in accordance with the descriptions and figures given by Signors D'Albertis and Salvadori § of several individuals of *C. beccarii* from the Fly River.

Yours &c.,

Vienna, May 1879. PELZELN.

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* P. Z. S. 1875, p. 527, pl. lviii. (head and neck).

† P. Z. S. 1878, p. 214, note.

‡ Ibis, 1879, p. 96.

§ "Catalogo degli uccelli raccolti di L. M. D'Albertis durante la seconda e terza esplorazione del fiume Fly negli anni 1876 e 1877" in 'Annali del Museo Civico di Genova, xiv. (1879), p. 120.

Kilmory, Lochgilphead, N. B.,
May 21, 1879.

Sirs,—It may interest some of your readers to know of two instances of the Tawny Owl (*Syrniun aluco*) breeding in a rabbit's burrow in this neighbourhood. Although noted by some ornithological writers as occasionally building on the ground, the selection of a hole for its nest has not, so far as I am aware, been before recorded. As Professor Newton (to whom I wrote) remarks, this selection may be consequent on the paucity in Argyllshire of hardwood trees of sufficient age and size to furnish hollow trunks and holes, and the habit may be in process of becoming hereditary.

The instance which came under my own notice was a nest of five eggs: one had rolled away into a branch of the burrow; the others were nearly hatched in the second week of April.

I enclose a letter of Mr. Bruce, of Ederline (at the foot of Loch Awe), which gives particulars of a similar case in 1876.

Yours &c.,
J. W. P. Orde.

[Mr. Bruce writes as follows:—"*April* 18*th*, 1876. Found its nest in a rabbit-hole, about two feet deep, in a sloping bank. The nest contained four young Owls, differing greatly in size: two were (I should say) at least ten days older than the other two, and no two of them looked quite of the same age; they were covered with whitish down, and kept their eyes shut. The nest also contained a rat and two mice, freshly killed, and with their heads taken off."—Edd.]

Heligoland, June 7th, 1879.

Sirs,—Since I reported last on the rare and occasional visitors to this island a page has been added to my journal that vies with the most prominent of these records, carried on now over a period of nearly forty years. My late captures are:—

Emberiza pyrrhuloides (April 24th). An old male in the most perfect nuptial plumage. This species has never before been obtained here, and consequently forms a most welcome addition to my cabinet, as well as to the list of the birds of this island.

Alauda pispoletta (May 26th). A fine old female; its ovary highly developed, and plumage very perfect. This acquisition also increases the catalogue of the birds of Heligoland by one, as, in spite of my vigilance respecting the smaller Larks, I had up to the present time not been able to detect this much-coveted prize, whilst *Alauda brachydactyla* has been captured at least thirty times. The most cursory glance will show the difference between these two nearly allied species, one of the most characteristic distinctions being the relative length of the longest primaries and the longest tertial, which latter feather reaches, in the closed wing of *A. pispoletta*, to the tip of the sixth primary only, whilst in *A. brachydactyla* it comes down very nearly to the tips of the longest of these quills. Besides this distinction, the well-defined blackish-brown marks on the feathers of the upper breast and sides of *A. pispoletta* are never to be mistaken for those scarcely visible obsolete blotches with which its near cousin is sometimes marked on the breast. Putting aside the long spur, *A. pispoletta* is, in its entire markings, as well as in its more lengthened mould, a Sky-Lark in miniature; whilst *A. brachydactyla* resembles more the short and roundish form of the Crested Lark.

The next highly interesting capture, though the species has been obtained here once before, consists of a fine male of

Phylloscopus viridanus (May 30th). This bird is an old male in fine plumage, unfortunately rather riddled with dust-shot. Still I managed, with an extra dose of patience, to produce one perfect side of this pretty and delicate Warbler. The plumage of this specimen is much more silky in appearance, and the yellow of the underparts a somewhat paler and more pure sulphur-yellow, than that of the specimen shot here last autumn (*vide* Ibis, 1879, p. 102). A similar difference existed between the only spring specimen of *P. superciliosus* and the specimens obtained here during their autumnal migration.

Finally, a very perfect old male of *Emberiza melanocephala* was brought to me on the 3rd of June. Curiously enough, two years ago, on the very same day, the same boy killed a young male of the same species by flinging a stone at it. Of this fine Bunting I have now obtained altogether five adult males in spring plumage, three old females, and two young males. Out of the whole number one young male only was shot here in autumn, all the remainder during the first half of June—thus testifying to the rule that south-eastern species, from the Caspian provinces, Arabia, Asia Minor, and Greece, stray beyond their normal bounds, with very rare exceptions, *in spring only*; whilst the natives of Eastern and North-eastern Asia are given to making such extra trips almost entirely during their autumnal migrations.

The specimen of *Phylloscopus viridanus* obtained by me last autumn came here under circumstances which put its eastern origin beyond any doubt; and as little doubt exists that the present bird started from Turkestan, or thereabouts, under the same impulse which induced *E. pyrrhuloides*, *A. pispoletta*, and *E. melanocephala* to start on an exceptionally long north-western journey.

The bodies of the above four birds I have sent to Prof. A. Newton, for his collection of the sternums of birds.

I am &c.,
H. Gätke.

P.S.—This morning (8th of June) a very fine old male of *Fringilla serinus* was shot here, and brought to me. This pretty little bird had been seen here only once before, and was a desideratum to my collection. British collectors had better keep a bright look-out, as it seems there is an uncommonly lively move of our friends from the far south-east.

P.S. (June 9th).—Just now a fine specimen of *Pastor roseus* has turned up in my garden.

Proposed Index to Reichenbach's 'Avium Systema Naturale.'—We learn with great pleasure that Dr. A. B. Meyer is proposing to issue a General Index to Reichenbach's 'Systema Avium Naturale' and other works. This will be most useful; for, as every one knows who has occasion to use them, Reichenbach's works are in a most chaotic state of confusion. We trust that Dr. Meyer will be able to give the date of issue of each part and volume of Reichenbach's publications, as many of them have absolutely no date at all attached to them.

Proposed New "Index Zoologicus."—We are pleased to be able to announce that Mr. S. H. Scudder, of Cambridge, Mass., has undertaken to prepare a new 'Nomenclator Zoologicus.' This is to be a complete index of all names used in zoology. It will embrace all the names in Agassiz's 'Nomenclator,' to be marked "A," those in Marshall's 'Nomenclator,' to be marked "M," and those in the successive numbers of the 'Zoological Record,' the object being, not merely to give the names, but to show whether a proposed generic name is preoccupied or not.

The New U.S. National Museum at Washington.—From a letter of Mr. E. Ingersoll to the 'Field' of April 5th last, we extract the subjoined account of the U.S. National Museum, for the erection of which, in the grounds of the Smithsonian Institution, an appropriation of 250,000 dollars was made by the last Congress just before its adjournment.

"The plan, contemplated as a whole, was originally suggested by Quartermaster-Gen. Meigs, U.S. Army, after careful inspection of the museums of Europe. It will be a building somewhat similar in appearance to those on the Exhibition grounds at Philadelphia, though brought into harmony, as far as possible, with the Lombardo-Gothic lines of the much-abused Smithsonian. It will be 300 feet square, with an area of 90,000 square feet—over two acres—and will be divided into sixteen exhibition halls. In addition to the public halls, the plans provide for about sixty smaller rooms, to be used as offices, laboratories, workshops, and store-rooms. These will occupy the two-story towers at the corners and entrances. The central hall, surmounted by a sixteen-sided dome or lantern about eighty feet high, will be over fifty feet square. Outside of this is a lower roof, about forty feet high, its supports inclosing an area 216 feet square. Still further outside is a third roof, lower than the second, and separated from it by a clerestory, covering a space 40 feet in width on all sides of the building. Viewed from any direction, the edifice will present the following profile:—A wall 20 feet high, broken by numerous broad triple windows; next a slope of roof covering the exterior cloister-like range, and rising towards the centre to a height of 30 feet; then the wall of the middle range, and beyond an expanse of roof, broken by a low clerestory, and studded with windows stretching up to the wall of the dome, which in the centre is lifted 80 feet above the floor. The plan is diversified by a square two-story building at each corner, by the imposing façade of the main entrance in the centre of each side of the structure, and by various other features.

"The ground-plan, as now sketched out, shows a central hall about 50 feet square, from which extend four halls, 54 feet wide and 110 feet long, stretching away to the four main entrances. These throughout are as high as the middle range, with arched roofs 40 feet or more from the floor. In the four angles of this lofty cruciform figure are four large halls, 81 feet square and 45 feet high, each with a corner touching the central hall. Outside of these are eight rooms in the outer range, with roofs 25 feet to 30 feet high. These rooms are 40 feet wide; four of them are 81 feet long, and four 120 feet, though the latter have each one corner occupied by a portion of one of the corner towers.

"Everything will be on one floor, without stairways or second story, no ceiling or fire-proof upper floors being required. The single floor will be of concrete, the walls of brick, the rafters and framework of iron, the roof of concrete and slate. It is expected that the building will be a model of cheapness and durability. In the ordinary style of architecture for public buildings in Washington, a house of the same capacity would cost several millions of dollars."

To this building, when complete, will be transferred the whole of the collections made by the various U.S. Exploring and Surveying Expeditions, at home and abroad, including those of Wilkes, Sitgreaves, Herndon, Gilliss, Rodgers, and other names well known to ornithologists, besides those gathered by the well-known collectors of the Smithsonian Institution in different parts of the world.

The Museum of Comparative Zoölogy, Harvard College, Cambridge, Mass.—The last report of this important scientific establishment that has reached us (for 1877–78) gives a gratifying account of its general progress, by Mr. Alexander Agassiz, the curator. Mr. J. A. Allen's special report on the mammals and birds tells us that the "collection of birds has been increased by the addition of 1200 skins (representing about 400 species), 145 skeletons (about one fourth of them mounted), 30 mounted skulls, 54 sterna and 12 other parts of skeletons mounted separately, 936 eggs, and 195 nests, altogether representing not less than 140 species. The accessions in both these departments represent mainly species not previously contained in the museum, and were selected generally with special reference to filling important deficiencies. Several invoices have been received from the Rev. M. M. Carleton, of Umballa, India, in the vicinity of which locality they were collected. These, added to Mr. Carleton's previous shipments, represent very fully the mammalian and avian faunæ of Northern India. Dr. T. M. Brewer, of Boston, has also contributed many nests and eggs of European and American birds, most of the latter being those of rare species. The oological department has been further enriched through the purchase of several considerable lots of eggs and nests collected in Colorado, California, and other parts of the west, embracing a large number of rarities.

Rare British Birds in the Zoological Society's Gardens.—A small but interesting addition has lately been made to the Zoological Society's aviaries in the shape of an Alpine *Accentor* (*Accentor alpinus*), which has been received from a correspondent in France. It is said to have been captured near Marseilles. So far as we know, the Alpine *Accentor* has never been seen alive in captivity before. Another "rare British bird" which may be seen in the Society's Gardens at the present time is an example of Bewick's Swan (*Cygnus *minor*). This was obtained some months ago, and has been placed in a pond adjoining one tenanted by the Whooper (*Cygnus ferus*); so that the differences between these two allies are readily appreciable on comparison.

Among the small Waders in the Fish-house are also to be now seen examples of the Knot and Grey Plover in full summer plumage.

Obituary.—H. G. L. Reichenbach, Med. et Phil. Dr., well known to all ornithologists by his 'Avium Systema Naturale' and 'Vollständige Naturgeschichte der Vögel,' died in Dresden on the 17th of March last, at the age of 86. For the last ten years Dr. Reichenbach had lived in retirement, owing to physical infirmities, and had given up the post of Director of the Natural-History Museum and of the Botanic Gardens in that city, which he long held. In the former post, as we need hardly remind our readers, he has been succeeded by Dr. A. B. Meyer.

Valerian von Russow, Conservator of the Zoological Museum of the Academy of Sciences of St. Petersburg, died in that city on the 18th of January last, at the early age of 37 years, in consequence, we believe, of disease contracted during his return from his recent scientific expedition to Turkestan, whence he brought back large and valuable collections. Hr. v. Russow was specially acquainted with the birds of the Baltic provinces of Russia, and has left behind him a MS. work on the ornis of that district, which, it is trusted, may be hereafter published. He has been succeeded in his office by Hr. Modest Bogdanow.

Thomas Knight Salmon, a well-known zoological collector in South America, died on the 5th of May last at Guildford, at the early age of 38, of disease of the lungs. Mr. Salmon was brought up as a mechanical engineer in the works of the London and North-Western Railway Company at Wolverton, and was for some years foreman of an engineering establishment at Guildford. Being compelled to abandon his profession from delicacy in the lungs, he devoted himself to natural history, to which he had always shown a great liking from boyhood, and opened a naturalists' shop at Guildford. After some years passed here, Mr. Salmon's health rendering it necessary for him to seek a milder climate, he proceeded in 1870 to Medellin, the capital of the State of Antioquia, U. S. of Colombia, where, for the last seven years he has been more or less continuously resident, in the service of ths State Government as engineer. But Mr. Salmon's heart was in the wilds, and he devoted the whole of his leisure time to collecting-excursions to different places round Medellin. Large collections of mammals, birds, insects, and other objects were made and forwarded to his agent in this country, Mr. Edward Gerrard, Jr. Mr. Salmon's collections of birds were very large, numbering some 3500 skins, and have formed the subject of a memoir by Messrs. Sclater and Salvin, which was read at the Meeting of the Zoological Society of London on the 3rd of June last.

Breeding of Darwin's Rhea.—Mr. Beerbohm's 'Wanderings in Patagonia'* can hardly be called a scientific work, though his adventures are full of interest, and tell us much of the Guanacos and other animals of the country. Mr. Beerbohm gives us the following details respecting the nest and eggs of Darwin's Rhea (*Rhea darwini*), of which we believe nothing has yet been published:—

"I found the nest to be of the roughest description, being simply a hole scooped in the ground, under shelter of a bush, and made soft for the young chicks by a few wisps of grass.

"The number of eggs found in a nest varies from ten to forty, being usually about twenty. In size the Patagonian Ostrich's egg is equal to about eight hen's eggs.

"It is the male bird that hatches the eggs and looks after the young,—being, I believe, the only male among birds which does so. The period of incubation is from twenty to twenty-four days. During rainy weather he never leaves the nest, but will sit for six or seven days without feeding. In fine weather he grazes for an hour or two in the evening, but never strays far from the nest, as Master Reynard, who is always prowling near, would soon make a raid on the eggs. It is said that if one egg is broken or abstracted from the nest during the absence of the male bird, on returning he will immediately detect the theft, and become so furious that he will dash the remaining eggs to pieces, and dance round the nest as if frantic.

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* Wanderings in Patagonia, or Life among the Ostrich-Hunters. By Julius Beerbohm. 8vo. London, 1879.

"After the hatching-period the birds lay their eggs promiscuously about the plains. These eggs are called 'huatchos' by the natives. They keep for a long time; and I have frequently met with huatchos in April which, although they must have been laid more than six months at that time, were still fairly eatable.

"The Ostrich of Southern Patagonia (*Rhea darwini*) is smaller than the 'Avestruz moro' (*Rhea americana*), as the species which frequents the country near the river Negro is called by the natives.

"The colour of its plumage is brown, the feathers being tipped with white, whereas the Moro, as its name indicates, is uniformly grey. The *R. darwini* are extremely shy birds; and as their vision is remarkably acute, it is by no means an easy matter to catch them, unless one has very swift dogs to hunt with."

Progress of Ornithology in India.—On this subject we extract the following passages from Mr. W. T. Blanford's address to the Asiatic Society of Bengal at their Annual Meeting, held on the 5th of February last:—

"Birds have, as usual, attracted far more attention than any other class of animals, vertebrate or invertebrate, and foremost amongst the publications devoted to them must be placed Mr. Hume's Journal of Ornithology for India and its dependencies, which continues to appear, under the title of 'Stray Feathers.' By far the greater portion of this periodical is from the pen of its proprietor and editor; and it is difficult to overestimate the energy and hard labour by which alone a work of this kind can be published by one busily engaged in official duties. Collections on the scale of Mr. Hume's have never been made in India before, in any branch of the animal kingdom; and much time and care are devoted to the determination and description of the large series of skins collected. Indeed Mr. Hume may fairly claim to have founded a school of ornithology in India; and the great attention now given to one of the most interesting classes in the animal kingdom by trained observers has no small effect in leading to a study of other branches of zoology, less attractive perhaps at first, but of equal scientific importance.

"The whole bird-fauna of British India and its dependencies, inclusive of Ceylon and Burma, as now known, comprises, according to Mr. Hume's estimate, about 1700 well-authenticated species, whilst only 1008 were enumerated in Dr. Jerdon's 'Birds of India,' the Assamese, Burmese, and Ceylonese forms not being included.

"Captain Legge's 'History of the Birds of Ceylon' is a most important work, of which one quarto part, containing 347 pages, has already appeared. I am indebted to Mr. Hume for an opportunity of seeing an early copy of this part—the only copy, I believe, that has reached India; and I can only indorse his opinion that it is the best work of the kind devoted to Indian zoology that has yet appeared. Carefully and systematically arranged, very much on the model of Dresser's 'Birds of Europe,' containing ample descriptions of plumage, habits, distribution, and nidification, it is still free from discursiveness; and the plates, in which most of the species peculiar to Ceylon are represented, are excellent. The present part contains the Accipitres, Psittaci, and Picariæ."

We need hardly add that we quite agree with Mr. Blanford in his estimate of both these works.

Date of Prjevalsky's 'Birds of Mongolia.'—In answer to a question from Mr. Hume, we believe we may state that the ornithological portion of Prjevalsky's work (which was translated and published in Rowley's 'Ornithological Miscellany') was published at St. Petersburg in 1876, and forms vol. ii. of the original Russian work, of which, however, we have not yet succeeded in finding a copy in London. There has been a copy ordered for the Zoological Society's library, which will, no doubt, arrive shortly.

Latest News from Heligoland.—Mr. Gätke, writing June 11th, begs us to add to his former PSS. a record of the capture of another adult *Emberiza melanocephala* on that day in his own garden. Mr. Gätke also states that on the 26th ult. a *Falco rufipes* was seen, although not obtained.

The generic Name Euchætes.—The generic term "*Euchætes,*" adopted by me for a Tanager (*Euchætes coccineus*). P. Z. S. 1858, p. 73, from J. Verreaux's MS., has, I find, been previously used in entomology by Dejean (Cat. Coléopt. ed. 2, 1834) and by Harris (Cat. Insects Massachusetts, 1841). I therefore propose to change it into *Calochætes.* There is only one known species of this genus, *C. coccineus,* from Ecuador, of which I have now two specimens—one, apparently an "Indian" skin, from Quito (received from Mr. Gould in exchange), and the other obtained by Mr. Buckley in Ecuador during one of his recent expeditions.—P. L. SCLATER.

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XXXIV.—*Additional Notes on the Ornithology of Transvaal.* By Thomas Ayres. Communicated by John Henry Gurney.

(Continued from p. 300.)

325. Turdus libonyanus, Smith. Kurichane Thrush.

Male, Rustenburg, June 11th. Irides light umber; eyelids chrome-yellow; bill orange; tarsi and feet pale chrome-yellow.

Female, Rustenburg, May 23rd. Irides dusky umber; eyelids and bill bright orange; tarsi and feet as in the male.

This is the commonest Thrush in the Magaliesbergen, but is of more retiring habits than *T. letsitsirupa*; it is often found in small companies of three or four together, but is as often solitary.

Pycnonotus nigricans (Vieill.). Brunoir Bulbul.

Male, Rustenburg, June 18th. Irides bright hazel; eyelids tumid and orange-coloured.

Male, Rustenburg, August 10th. Irides bright hazel; eyelids orange.

Two females, Rustenburg, July 23rd. Irides red-hazel; eyelids tumid and orange-yellow.

This species is very plentiful about the Magaliesbergen; in the Potchefstroom district it is not nearly so common.

326. Pycnonotus layardi, n. sp. Layard's Bulbul.

Four males, Rustenburg, June and July. Irides dusky umber or dark umber.

Female, Rustenburg, June 18th. Irides umber.

This species is equally plentiful about Rustenburg with the preceding one; and both are almost always together in companies, feeding amicably, side by side, on the numerous berries which are on many of the bushes and trees. They are very fond of mobbing any strange bird they see, or a cat, and are useful on that account. Sometimes they make a great noise about a snake, an Owl, or a Hawk. When they begin to chatter, many other birds come at once to see what is the matter; and one can always get a good bird or two by attending the call of assembly.

[Mr. Sharpe, in his second edition of Mr. Layard's 'Birds of South Africa,' only admits two South-African species of *Pycnonotus*, under the names of "*P. capensis*, Red-eyebrowed Bulbul," and "*P. tricolor*, Black-eyebrowed Bulbul;" he adds, "Although for the present admitting only two species of *Pycnonotus* in South Africa, we do not regard the matter as settled."

To me it appears that each of the above species admitted by Mr. Sharpe comprises two distinct races, capable of specific distinction, and that thus the entire number of species of this genus found in South Africa is in reality four.

This view has been already ably advocated by Mr. Layard in 'The Ibis' for 1871, pp. 229, 230; and I believe that it is satisfactorily sustained by the result of subsequent observations.

Of these four species, two, viz. *P. capensis* and *P. tricolor*, have the crown of the head dark brown, whereas in the other two species it is a decided black. The brown of the breast comes much closer down to the yellow crissum in *P. capensis* than in the other three species; but this peculiarity is not shown in Le Vaillant's figure (pl. 105) of his "Brunet," which, however, appears by the accompanying letterpress to be intended to represent *P. capensis*. Another inaccuracy in this plate is the tone of colouring of the brown portions of the plumage, which are represented as much more rufous than they are in nature. A more correct figure of *P. capensis* has been given by Mr. Dresser in his 'Birds of Europe;' but the specimens I have seen have the throat not so dark a brown, and the white on the abdomen less extended than is shown in Mr. Dresser's plate.

I have now before me three specimens of *P. capensis*, for the loan of which I am indebted to the kindness of Captain Shelley, by whom one of them was shot at Wellington, in the Cape colony, the other two being simply labelled "Cape—Butler."

In all these specimens the eyelids are white, agreeing with the description of this species given in the first edition of Mr. Layard's work, in which the eyelids are spoken of as "surrounded by a white fringe," and with "the white eyelid" subsequently ascribed by Mr. Layard to this species in 'The Ibis' for 1871, p. 230.

Captain Shelley, however, in a note which he has been good enough to write to me respecting these birds, says, "The only specimen I shot of *P. capensis* was at Wellington, Cape Colony; the eyelids were black, with a very faint reddish tinge;" and I also observe that one of Captain Shelley's other specimens, obtained at the Cape, has been labelled by the collector, "beak and legs blackish, iris reddish brown, edge of eyelid vine-red."

It would seem, therefore, that in this species the colour of the eyelid alters and becomes white after the skin has been preserved, as has been already pointed out by Mr. Sharpe at p. 207 of the second edition of Mr. Layard's work.

The second (and, as it seems to me, quite distinct) species, which has been united to *P. capensis* in Sharpe's edition of Layard, is *P. nigricans* of Vieillot, which was founded on Le Vaillant's "Brunoir" (pl. 106. fig. 1). This figure represents a species which, according to Le Vaillant, "ne se trouve pas dans les environs du cap de Bonne-Espérance, ni

dans aucune partie de la côte de l'est, au lieu qu'il est très-abondant dans le pays des Namaquois, notamment depuis la Grande Rivière jusque vers le tropique," and which he thus describes:—"Sa tête et sa gorge seulement sont noires; tout le reste du plumage est d'un brun terreux, plus foncé sur les ailes et la queue; couleur qui s'éclaircit sur la poitrine et qui blanchit totalement au ventre; les couvertures du dessous de la queue sont d'un jaune citron; les yeux, d'un brun foncé, sont entourés d'une paupière orangée d'une demi-ligne d'épaisseur; le bec et les pieds sont brunâtres."

This description, which is much more accurate than the figure that it accompanies, agrees very well (except that the bill should have been described as black, the feet also as black, or very nearly so, and the irides as reddish brown) with the *Pycnonotus*, which is found (sometimes with a yellow, but more often with an orange, tumid eyelid) from Damaraland to the west, as far eastward as Transvaal, thus occupying a more northerly range than that inhabited by *P. capensis*, which seems not to extend beyond the Cape colony.

I may add that the colour of the eyelid appears to be more permanent in specimens of *P. nigricans* than in those of *P. capensis*. I have before me two that were obtained in 1876, in which the orange-yellow circle round the eye is still conspicuous; and though, no doubt, this colour gradually fades, it does not become white, as is the case with the eyelid of *P. capensis*.

P. nigricans associates in Transvaal with a third, nearly allied species, which appears to be the only *Pycnonotus* inhabiting Natal, whence it extends northwards to Zanzibar, and southwards (according to Mr. Layard, Ibis, 1871, p. 230) to Graham's Town.

In 'The Ibis' for 1860, p. 209, I referred this species to *P. nigricans*, to which Captain Shelley also referred it in 'The Ibis' for 1875, p. 74; but in 'The Ibis' for 1873, p. 255, I referred it to *P. tricolor*, under which head it is also comprised in Sharpe's edition of Layard.

Subsequent investigation has convinced me that this *Pycnonotus* is, as stated by Mr. Layard in 'The Ibis' for 1871, pp. 229, 230, distinct from both *P. nigricans* and *P. tricolor*, and also from *P. capensis*; and as Mr. Layard unfortunately did not give it a specific name, I propose to call it, after him, *Pycnonotus layardi*.

The nearest allies of *P. layardi* appear to me to be *P. nigricans* and the more northern *P. xanthopygus*. From *P. nigricans* it seems only to differ in the throat (as distinguishd from the chin) being dark brown instead of black, in the eyelids being (to use the words of Captain Shelley in 'The Ibis' for 1875, p. 74) "black, thick, but not wattled," and in the iris being, as observed by Mr. Ayres, "umber," or "dusky umber," instead of "red-hazel," or "bright hazel," or, in the words of Mr. Andersson, "rather pale yellowish red"*.

In Mr. Dresser's article in the 'Birds of Europe' on *P. xanthogypus*, he points out the differences between that species and *P. layardi*, speaking, however, of the latter as "*P. nigricans*."

In company with Mr. Sharpe, I have recently compared a Transvaal specimen of *P. layardi* with the type of *P. tricolor* from Angola, which is preserved in the British Museum; and I believe I may state Mr. Sharpe now agrees with me in considering the two specifically distinct.

In *P. tricolor* the upper surface of the head is a decided brown, scarcely darker than the brown of the back, whilst in *P. layardi* it forms a distinct black cap; the entire mantle is a purer and richer brown in *P. tricolor* than in *P. layardi*, in which latter it is slightly tinged with greyish olive. *P. tricolor* also differs from *P. layardi* in the almost entire absence of any tinge of black from the sides of the head and from the chin, and in the much more sharply defined boundary between the brown of the breast and the white of the abdomen, as shown in the figure of this species in the P. Z. S. 1871, pl. 7. fig. 2.

P. tricolor appears to be entirely a South-west African form, ranging from the Congo to Damaraland, which appears to be its southern limit.

It may be serviceable to add the following measurements, taken from specimens of *P. capensis, P. nigricans, P. layardi,* and *P. tricolor,* which have either been kindly lent to me by Captain Shelley or are in my own possession.

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* 'Birds of Damara Land,' p. p. 120.

	Bill.	Wing.	Tail.	Tarsus.
P. capensis.				
Three specimens, sex not marked, from Cape Colony.	·65 to ·70	3·75 to 3·85	3·30 to 3·50	·90
*P. nigricans**.				
Male and female, Damaraland	·60	3·80	3·	·80
Five males, from Transvaal	·60 to ·72	3·90 to 4·	3·30 to 3·50	·80 to ·90
Three females, from Transvaal	·60 to ·62	3·70 to 3·90	3·20 to 3·30	·85 to ·90
P. layardi.				
From Pangani River, sex not marked	·60	3·60	3·10	·85
Two specimens, sex not marked, from Daru Salam†.	·50 and ·62	3·60 and 3·50	3· and 3·20	·80
From Zanzibar, sex not marked	·65	3·90	3·50	·90
Male, Swaziland	·70	3·85	3·40	·90
Five males, from Transvaal	·65 to ·70	3·80 to 4·10	3·40 to 3·60	·90
Two females, from Transvaal	·62	3·80	3·30	·90
Three males, from Natal	·62 to ·65	3·90 to 3·95	3·40 to 3·60	·90
Female, from Natal	·60	3·70	3·40	·90

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* The late Mr. Andersson, in an unpublished note, now in my possession, referring to specimens of *P. nigricans* obtained by him in Damaraland, gives the following measurements:—

"*Average Dimensions of ten Males and Females.*

	inches.	lines.
Entire length	7	5
Length of wing when folded	3	8
Tarsus		9
Middle toe		7½
Tail	3	3
Bill		10."

† It is remarkable that these two specimens, which were obtained by the late Mr. E. C. Buxton on the mainland opposite Zanzibar, and that

	Bill.	Wing.	Tail.	Tarsus.
P. tricolor.				
Male, from Landana, Congo	·60	3·75	3·20	·90

I may mention that the above lists comprise specimens of *P. nigricans* killed in January, May, June, July, August, and October—and of *P. layardi* in February, March, June, July, and September—showing that the differences between these two species are not merely seasonal.—J. H. G.]

327. Crateropus jardinii, Smith. Jardine's Babbler.

Male, Rustenburg, May 29th. Irides with a crimson outer ring and an orange inner ring; bill black; tarsi and feet dark ash-colour.

Female, Rustenburg, May 29th. Resembling the male, but with the outer ring of the irides scarlet.

This Babbler is common about the mountains, where it is found in companies.

Crateropus bicolor, Jardine. Southern Pied Babbler.

Male, near Rustenburg, June 24th. Irides orange, fading into light yellow at the outer edge; bill black, tarsi and feet dark dusky brown.

Female, near Rustenburg, June 26th. Irides brownish orange; bill, tarsi, and feet as in the male.

This is a much scarcer species than the preceding one, and also much more wary. I met with two or three companies near the Eland's river, a tributary of the Crocodile river; but it was with some difficulty that I shot the two specimens sent.

Monticola brevipes, Waterh. Short-footed Rock-Thrush.

Male adult. Irides dusky; bill, tarsi, and feet dingy black.

This species is widely distributed about the mountains, but is not very common.

Cossypha humeralis, Smith. White-shouldered Chat-Thrush.

The bird sent was killed in February by my brother at Rus-

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from the Pangani River, in the same district, should be so much smaller than the next specimen, which is said to have been obtained at Zanzibar itself on the Zanzibar island.

tenburg; when I was there, later in the year, I did not meet with this species, and rather think it is more plentiful during our summer than in the winter months. It inhabits dense thickets.

[Some years since Mr. Ayres sent me a specimen of this Chat-Thrush from Natal, which, by some accident, was not included in my lists of birds received from that colony.—J. H. G.]

THAMNOBIA CINNAMOMEIVENTRIS, Lafr. Southern White-shouldered Bush-Chat.

Male and female, killed 27th May. Irides dusky; bill, tarsi, and feet black.

This is a very local species: I met with it but once amongst the mountains of Rustenburg; and that was in a precipitous and well-wooded ravine on the south side of Oliphant's Nek. There must have been at least a dozen of these birds together; but I only got two; one more I killed, but could not find; they fell amongst deep crevices in the rocks, and were by no means easy to retrieve. After I had fired three or four times they flew further up the gorge, and I saw them no more.

MYRMECOCICHLA FORMICIVORA (Vieill.). Southern Ant-eating Wheatear.

Female, shot in July.

This species is common on all the open country near Rustenburg, especially on the Town.

[In both editions of Mr. Layard's work it is stated that the female "wants the white shoulders;" but in the present specimen they are present, as in the male. In both sexes this white patch on the ridge of the wing does not quite reach to the carpal joint.—J. H. G.]

SAXICOLA GALTONI (Strickl.). Familiar Wheatear.

Male and female. Irides dusky umber; tarsi and feet black.

This is a very common species throughout the Rustenburg district, and exceedingly familiar and tame. Two or three pairs may be seen close to every farmstead; and almost every separate clump of bush along the roadsides holds its pair;

from the tops of the mountains to the lowest dales this inconspicuous little fellow is to be found.

So far as I know, I have never met with it near Potchefstroom, though a specimen obtained at a distance of fifteen miles from thence has been recorded in 'The Ibis' for 1877, p. 343.

SAXICOLA LEUCOMELÆNA, Burch. Burchell's Wheatear.

Male, shot June 22rd. Irides dusky; bill, tarsi, and feet black.

This is a very local species about the Magaliesbergen. I found half a dozen of these Wheatears on the Hex river, amongst some rocks, about ten miles from Rustenburg; these, and one or two others amongst some rocks near Eland's river, were all I came across during my stay in the Rustenburg district.

[In 'The Ibis' for 1878, at pp. 291 to 294, I described four Wheatears sent by Mr. Ayres, which all appeared to be referable to this species. The specimen now sent agrees in the distribution of its colours with the third example described as above, except that the black centres to some of the feathers on the white shoulder-spot are smaller and less conspicuous; the dark portions of the plumage are also less black and more tinged with brown, very much resembling the corresponding parts in the fourth specimen described by me last year. The bird now sent was moulting when killed; and a new central rectrice is of a much deeper black than the adjacent ones, which are old and apparently faded; the same circumstance is also observable in the tertials of both wings.—J. H. G.]

ORIOLUS LARVATUS, Licht. Masked Oriole.

Male and female adult, shot 22nd July and 3rd August. Irides crimson; bill flesh-colour; tarsi and feet pale dusky ash-colour.

A younger female, shot 22nd July. Irides reddish brown; bill black; tarsi and feet as in the adult.

This Oriole is not uncommon in the wooded parts of the Rustenburg mountains, but is somewhat shy and wary.

[The adult male sent agrees in coloration with the description of that sex given by Mr. Sharpe in 'The Ibis' for 1870, p. 224. The older female has the forehead and cere sprinkled with minute particles of greenish yellow dust, which prevents the forehead from presenting an appearance of pure black; otherwise this female does not differ in coloration from the male. The younger female differs in having all the black feathers on the crown of the head slightly edged with greenish yellow, which is more conspicuous towards the forehead than towards the nape; the feathers of the chin and throat have black centres, with greenish yellow edges; and many of the yellow feathers of the upper breast also have black centres, which are most conspicuous in the feathers nearest the throat. —J. H. G.]

328. JUIDA PHŒNICOPTERA, Swains. Flame-shouldered Grakle.

Male and female. Irides orange; bill, tarsi, and feet black.

This is the commonest of the Grakles; the whole country about Rustenburg is alive with them.

JUIDA MORIO (Daud.). Roupenne Grakle.

This is also a very common species in the Rustenburg district, feeding on the various berries with which the bush abounds.

DILOPHUS CARUNCULATUS (Gmel.). Grey Starling.

This species is not uncommon, and is often seen in company with *Juida phœnicoptera*.

FISCUS COLLARIS (Linn.). Fiscal Shrike.

This is one of the commonest birds all over the Magaliesbergen, where it is to be met with either singly or in pairs.

329. FISCUS SUBCORONATUS (Smith). Coronetted Shrike.

Male, shot at Potchefstroom 23rd of March.

UROLESTES CISSOIDES (Licht.). Long-tailed Shrike.

This is a somewhat local species; here and there amongst the bushy hills one may come across a small company of these Shrikes.

Nilaus brubru (Lath.). Brubru Shrike.

This species is generally distributed, but is not very common in the Rustenburg district; it is mostly a solitary bird, and may be found hunting for insects about the foliage of the trees.

330. Pomatorhynchus erythropterus (Shaw). Rufous-winged Bush-Shrike.

(A) Female, Rustenburg, June 3rd. Irides bluish slate-colour; bill black; tarsi and feet very light slate-colour.

(B) Female, Rustenburg, July 18th.

(C) Female, Rustenburg, August 9th. Bill black; tarsi and feet light ash-colour. Total length 9¼ inches.

(D) Female, Rustenburg, August 16th. Irides slaty blue; bill black; tarsi and feet light ash-colour. Grasshoppers in the stomach.

This Shrike is not uncommon; it frequents the low bush, and is an adept at hiding.

[I have taken the following measurements of the four specimens sent by Mr. Ayres:—

	Wing.	Tarsus.	Tail.
A	3·80	1·20	3·80
B	3·55	1·10	3·90
C	3·70	1·20	3·90
D	3·60	1·10	3·80

—J. H. G.]

331. Pomatorhynchus trivirgatus (Smith). Three-streaked Bush-Shrike.

(A) Sex uncertain.

(B) Ditto, Rustenburg, June 24th. Irides dusky hazel; bill light dusky brown, with the basal part of the under mandible pale; tarsi and feet light ash-colour.

(C) Female, Rustenburg, July 8th. Irides dark hazel; bill dusky brown; tarsi and feet pale ash-colour.

(D) Female, Rustenburg, August.

This species appears to be about equally numerous with the preceding one, and inhabits similar situations.

[The following are measurements taken from the above-named four specimens of *P. trivirgatus*:—

	Wing.	Tarsus.	Tail.
A	3·	1·10	3·60
B	3·10	1·10	3·50
C	3·10	1·	3·30
D	3·10	1·10	3·40

These measurements, and those of the preceding species, may be compared with the tables of dimensions given at pp. 152 and 150 of Andersson's 'Birds of Damara Land.'

The four specimens of *P. erythropterus* have the crown of the head black, and the four of *P. trivirgatus* have it brown, showing the usual distinction between the two species in that respect.—J. H. G.]

332. DRYOSCOPUS CUBLA (Shaw). South-African Puff-Shrike.

Male, Rustenburg, June 11th. Irides red.

Female, Rustenburg, June 6th. Irides orange.

Female, Rustenburg, August 9th. Irides dull crimson.

These birds are not uncommon amongst the bush on the Rustenburg mountains. They are generally in pairs; and their habits are shy and retiring; their note much resembles that of *Oriolus larvatus.*

LANIARIUS* BOULBOUL (Shaw). Boulboul Shrike.

Male. Irides very dark umber; bill dusky, ashy at the base; tarsi ash-colour.

Female. Irides umber; bill black; tarsi and feet dingy black.

This is also a shy and retiring species; it is not uncommon in dense thickets.

[In the female bird mentioned above, which was shot on 6th June, the black of the upper parts is very nearly as dark and rich as that of the accompanying male, and the fawn-colour of the underparts is more so; the white bar on the wing is as distinct in this female (which is probably quite an old bird) as in the male; this does not entirely accord with the description of the female given in the first edition of Mr. Layard's work.—J. H. C.]

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* [In Mr. Sharpe's 'Catalogue of African Birds,' 1871, this species is referred to the genus *Dryoscopus*; but it seems to me that it cannot be generically separated from the succeeding species (*atrococcineus*), which Mr. Sharpe, in the same work, refers to the genus *Laniarius.*—J. H. G.]

Laniarius atrococcineus (Burch.). Southern Crimson-breasted Shrike.

Male, Rustenburg, June 25th. Irides dusky umber; bill, tarsi, and feet black.

This handsome Shrike is decidedly a local species: in some parts of the Magaliesbergen it is tolerably plentiful; but in other parts equally good-looking cover does not hold a specimen; in the more northern portions of the district it becomes much more plentiful. According to my experience it is an exceedingly shy bird.

Prionops talacoma, Smith. Smith's Flycatcher Shrike.

Male, Rustenburg, July 26th. Irides pale gamboge; eyelids orange; bill black; tarsi and feet orange.

These birds are sparingly found in small companies throughout the wooded parts of the Rustenburg district. They are extremely wild and difficult to approach after being shot at once or twice.

Bradyornis silens (Shaw). Silent Flycatcher.

This species is tolerably plentiful about Rustenburg; and I may also mention that on the 26th October I took its nest and eggs near Potchefstroom. The nest was in my garden, placed about eight feet from the ground, on the top of a rough post, sheltered by grape-vines. It was cup-shaped and rough in structure, composed of dry grass, rags, and feathers, giving it a generally white appearance, with bits of wool, fluffy grass-seeds, and finer feathers inside. The eggs, three in number, were of a pale tawny or dingy white, faintly but uniformly marked with very pale brown; they varied slightly in colour and size, measuring respectively $\frac{14}{16}$ of an inch by $\frac{19}{32}$, $\frac{13}{16}$ by $\frac{19}{32}$, and $\frac{12}{16}$ by $\frac{9}{16}$. Considering the size of the bird, the egg is small and delicate; it somewhat resembles that of *Motacilla capensis.*

[Mr. Ayres sends five specimens of this Flycatcher:—one an adult male, a second a female just losing the plumage described by Mr. Sharpe in vol. iii. of his British-Museum 'Catalogue,' p. 313, as "young;" a third specimen, sex not marked, answering to Mr. Sharpe's description of the "adult female;" the fourth a female in similar plumage, but with a single white feather on the crown of the head; and, fifthly, an older female, also with an aberrant white feather on the crown, which resembles the adult male in the extent of white on the wings and tail, and is a dull black (not brown, as the other females) on the upper surface.—J. H. G.]

333. Bradyornis ater, Sund. Southern Black Flycatcher.

Male and female, Rustenburg. Irides dusky; bill, tarsi, and feet black.

This species is generally found in pairs; it is not very common.

[I recently had an opportunity of comparing the female above mentioned with the Damara specimen in the British Museum referred by Mr. Sharpe (*op. cit.* p. 314) to his "*Bradyornis diabolicus*;" and they appeared to me to be identical. My impression is that *B. diabolicus* is not a good species.—J. H. G.]

Buchanga assimilis* (Bechst.). Musical Drongo.

Dicrurus musicus, Vieill.

Male. Irides bright crimson; bill, tarsi, and feet black.

This species is generally spread all over the Rustenburg district. It has a great variety of notes.

334. Batis molitor (Hahn & Küst). Hahn's Flycatcher.

Male and female. Irides pale yellow; bill, tarsi, and feet black.

This is the commonest of the Flycatchers about Rustenburg, though one very seldom sees more than a pair together, and appears to be pretty generally distributed in the district wherever there is bush. The note of this species is extremely loud, considering the size of the bird.

Batis capensis (Linn.). Molenar Flycatcher.

Male, Rustenburg, July 26th. Irides dark gamboge-yellow, changing almost immediately after death to orange-yellow; bill black; tarsi dusky (almost black); feet ash-colour.

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* *Conf.* Sharpe's Brit. Mus. Cat. vol. iii. p. 247.

This is a decidedly scarce bird in the Magaliesbergen; it frequents the same localities as the preceding species, and has much the same restless habits.

STENOSTIRA SCITA (Vieill.). Mignard Flycatcher.

Male, Rustenburg, June 18th. Irides dusky; bill, tarsi, and feet black.

This very small bird is often seen hunting assiduously for minute insects amongst the foliage of bushes and trees; it is generally solitary, and I have never seen more than two together.

EREMOMELA USTICOLLIS, Sund. Brown-throated Bush-chirper.

Male, Rustenburg, June 28th. Irides tawny white; bill, pale, with the ridge dusky; tarsi and feet pale russet.

335. EREMOMELA HEMIXANTHA, Seebohm, n. sp. Rustenburg Bush-chirper.

One specimen not sexed, Rustenburg, June 13th. Irides pale chrome; bill black; tarsi ashy, gradually assuming light brown at the feet.

Two males and one specimen with the sex not noted, Rustenburg, July 24th. Irides pale chrome-yellow.

Female, Rustenburg, July 23rd. Irides very pale tawny-yellow; bill black; tarsi dusky brown, assuming light reddish brown at the feet.

This species is found in small companies.

[I have submitted the specimens sent by Mr. Ayres to the examination of Canon Tristram, Mr. Sharpe, and Mr. Seebohm, who all agree with me in considering them as belonging to a species hitherto undescribed; and the last-named gentleman has been good enough to draw up the following detailed description of it; the specific name of *hemixantha* has been selected as indicative of the yellow colouring of the lower half of the body.—J. H. G.]

"General colour of the upper parts greyish brown, slightly suffused with olive-green, especially on the wings, and shading into greenish yellow on the crown and forehead. Lores and ear-coverts greyish brown. Wings and wing-coverts brown, each feather having a narrow pale edge to the outside web. Tail-feathers brown, with narrow pale edges, broadest and best-defined on the outside feathers.

"Underparts an almost uniform sulphur-yellow, slightly paler on the chin, axillaries, and under wing-coverts. Inner lining of quills pale buffish brown.

"Bill Sylviine, but with no perceptible dental notch or undulation, both mandibles dark brown, nearly black. Rictal bristles very small.

"Wing with the fourth primary rather the longest. Second primary generally intermediate in length between the seventh and eighth, occasionally between the eighth and ninth, and occasionally equal to the seventh. Bastard primary narrow, sometimes half as long as the second primary, but generally less than half.

"Legs dusky brown, feet and claws reddish brown. Iris pale chrome-yellow. Tarsus scutellated in front.

"Length of wing 2·36 to 2·27 inches, tail 1·95 to 1·86, culmen ·52 to ·5, tarsus ·73.

"Tail-feathers twelve, of which the outer ones are from ·2 to ·15, shorter than the longest.

"There appears to be no difference in the sexes. Five skins in the possession of Mr. Gurney were obtained by Mr. Ayres at Rustenburg, in the Transvaal, between 13th June and 24th July; and two skins in the possession of Capt. Shelley were obtained by Mr. Lucas in the same locality, one on 9th June and the other 10th August. All the skins obtained are probably those of birds in winter plumage."

ZOSTEROPS SUNDEVALLI, Hartl. Sundevall's Zosterops.

Male, Rustenburg, August 6th. Irides light brown; bill horny black, with the basal part of the lower mandible blue ash-colour.

Female, Rustenburg, August 7. Irides and bill as in male; tarsi and feet brownish ash-colour.

ZOSTEROPS VIRENS, Sund. Green Zosterops.

Sex uncertain, Rustenburg, June 29th. Irides tawny-yellow.

This and the three preceding species (*Eremomela usticollis*, *E. hemixantha*, and *Zosterops sundevalli*) are equally common about the wooded parts of the Rustenburg district. Each species is generally found in small companies; each has the same habits of creeping and hanging about the leaves and buds of trees in search of insects; each appears to have a low melancholy weeping note; and the flight of each is much the same: it is not easy at a little distance to distinguish the species.

[To be continued.]

XXXV.—*Ornithological Notes from the Neighbourhood of Cape San Antonio, Buenos Ayres.* By ERNEST GIBSON, F.Z.S.

[IN explanation of the small number of species here recorded and noted on, I have only to say that it seemed better to merely write on those with which I was well acquainted, leaving all others for a future paper. Several I had not yet succeeded in identifying; and regarding others my data are too insufficient to work upon, or are wanting in some essential particulars. As a resident in the locality also, and not merely a visitor, I think I am justified in the postponement of all such incomplete notes.

To Mr. Salvin I am indebted for the identification of my bird-skins; and I also take the opportunity of acknowledging the valuable assistance and many kindnesses received from Mr. J. A. Harvie Brown, of Dunipace, during the six years of my residence in Buenos Ayres.]

A few words regarding the locality and the nature of the district may be useful, as indicating what classes of birds are to be found, and in what relative proportions.

Our land ("estancia," or stock-farm) is situated just inside Cape San Antonio, and is bounded on the north by the estuary of the River Plate. A neighbour holds the adjoining piece of land, on which is the cape itself, while his eastern boundary, again, is the Atlantic Ocean. The shore of the latter is sand; and a line of sand dunes (varying from half a mile to two miles in width) extends from the cape down as far south as the Sierras of Tandil, where the first rocks or cliffs occur. The coast-line may be said to run north and south; but I am puzzled to account for the existence, inland, of numerous long sandy ridges (now covered with grass) parallel to each other and all trending N.W. and S.E. These would seem to indicate that the action of the estuary of the River Plate and the Atlantic Ocean combined have tended to alter the shape of the cape since the formation of these old coast-lines or beaches.

Immediately inside the cape, and extending all round the Bay of Sanborombon, the coast is of an entirely different character. For three or four miles inland, and encircling the whole of the bay, are found the "rincones," a maze of islands and peninsulas, formed of tidal creeks of more or less importance, the ramifications of which are innumerable. The soil is a clay, hard enough on the surface, but becoming soft as butter a few feet below the surface, and is strongly impregnated with salt. The vegetation principally consists of dense coverts of giant grasses, such as the pampa-grass (*Gynerium argenteum*) and a species of esparto. The most of this land, and all the tidal creeks, are inhabited by a small burrowing crab, in countless myriads; and the creeks are consequently called "cangrejales" (from "cangrejo," a crab). The "rincones" are evidently of very late formation, and are perceptibly both rising and becoming firmer.

The shore of the bay is muddy; and various salt-water carices fringe it in parts, from the cape upwards. A few rocks of that curious formation known locally as "tosca" (the "Löss" of the Pampean formation of German geologists) make their first appearance also on rounding the cape and advancing three or four miles into the bay.

The camp ("el campo"), or plains, are quite level in this district, no roll in the prairie. Sir Francis Head, who, in his 'Ride Across the Pampas,' delineates them better than any other writer I know of, gives a most graphic description of the way in which a rancho, a tree, or a herd of cattle or horses, appears on the horizon, is reached, passed, and fades in the distance, to be replaced by some such other object, as the rider gallops steadily on, fifty miles before noon, ninety by the time he finally dismounts and stakes out his horse. Words cannot describe the pampas; they need to be seen to be appreciated properly. It is strange that various writers find their influence to be gloomy and saddening, and attribute the natural Spanish gravity of the country-people to this most unnatural cause. They are solemn and impressive at times—in a summer thunder-storm, or at night, with a fierce pampero wind driving a few white clouds across the full moon; but commend me to the warm sunlight, the sensation of perfect freedom in that great solitude, the line where plain and sky meet so palpably, yet so unattainably, though the long leagues gather behind one, day after day, while the only sounds are those of the breeze among the grasses and scarlet "margaritas" (verbenas), the occasional cry of a bird, and the continuous dull roll of the horse's hoofs, with its jingling accompaniment from the Spanish saddle-housings.

The actual alluvial soil here is shallow, and consists of about nine inches of black earth, followed by a foot of clay (locally called "greda"); then comes sand, and after that—more sand! which expresses all that is known of the depth of the latter stratum. There are no stones or pebbles, not even of the size of a pin-head; but sea-shells make their appearance in the sand at from eight to ten feet below the surface of the ground. Water is found at a depth of from four to eight feet, but is very often either salt or brackish. Probably the district averages only six feet above the level of the sea.

Of the grasses, suffice it to say that they have undergone various important modifications during the last fifty years, the "cortadera" or pampa-grass being only found in the rincones now, and having been replaced by soft grasses. De Moussy, in his late work on the Argentine Confederation, includes this district among the highest class of pastoral lands in the province of Buenos Ayres; and Buenos Ayres yields precedence to no other country in the world on that point.

We are fortunate in having several natural woods also, part of that strip which extends from the latitude of Buenos Ayres down to the Mar Chiquita (near the Sierras de Tandil), along the sea-coast, and which has been called the woods of the littoral. The "tala" (of the genus *Celtis*) predominates; but the "coronillo" is abundant, and the "quebrachillo" is not uncommon, while among the brushwood the elder (*Sambucus australis*) occupies the most prominent place.

The district is drained by a great network of freshwater swamps or fens, known as "cañados," sometimes only narrow belts, but often expanding into a superficies of some scores of acres. The deepest have only about five feet of water, and then perhaps another foot of mud; but they can be traversed everywhere on horseback, except at their mergence into the tidal creeks or small rivers of the rincones. They have an existent though almost imperceptible current. In a very dry summer they all dry up, with the exception of a few ponds in some of the principal ones. Their vegetation consists of various reeds, rushes, and water-plants, the most important being the "hunco," "durasnillo," and "espadaña," all growing to a height of from five to seven feet above the surface of the water. Notwithstanding their almost stagnant nature and the abundance of decomposing vegetable matter contained in them, they are perfectly healthy, and give off no injurious malaria. Doubtless this is to be accounted for by the treeless plains being so frequently and thoroughtly swept by the winds, and by a considerable amount of salt inherent in the soil and vegetation, a good example of the latter being a *Salicornia*, called here "jume."

In palæontological remains the district is very poor, as might be inferred from its lowness. Fragments of the carapace of the *Glyptodon* are occasionally found on the Atlantic sea-board, among the débris scattered along the shore. There are also five more or less incomplete skeletons of whales on our own land alone.

Very recently I made the interesting ethnological discovery of extensive remains of Indian pottery, flints, &c. A flint arrow-head conclusively proves that these belonged to the ancient Guarani Indians, and not to the present races now inhabiting the pampas of Buenos Ayres.

What follows, then, as may be gathered from these notes, is a natural division of all our birds into three great classes—namely, those of the wood, the plain, and the swamp. The rincones have also a few species peculiar to them; but, again, to counterbalance that, the shore has none.

The total number of species found here is at least one hundred and twenty; and I hope and expect it may reach ten or fifteen more. As already remarked, the following constitute only a small portion of that number; and it remains for future observations to work up the balance of the ornithology in the neighbourhood of Cape San Antonio.

1. GERANOAETUS MELANOLEUCUS (Vieill.).

The "Aquila" of our natives (Spaniards).

Rather rare here, and very local in its habits. A pair used to frequent one of the woods surrounding our head station, and bred there for many years; but they abandoned their eyrie before my time (1872), though I have since that date seen two adults and two young birds (in the brown plumage) at various intervals. In the plains I have twice seen single specimens, in both cases at carrion, the Caranchos (*Polyborus tharus*) keeping at a respectful distance during the repast. Where I can always make sure of finding them is at the entrance to our rincones, two or three pairs breeding there in a narrow belt of woods, the eyries being generally a couple of miles apart.

Its flight is slow; and when disturbed it generally ascends in spiral circles. When doing so it does not look very majestic, the wings being too broad in proportion to their length. Its whereabouts may often be detected by an attendant flock of Caranchos, particularly in the case of a young bird. As soon as it rises from the ground or from a tree, these begin to persecute it, ascending spirally also, and making dashes at it, while the Eagle only turns its head watchfully from side to side, the mere action being sufficient to avert the threatened collision.

Very rarely does it give utterance to its cry, then generally in the vicinity of the nest, and only on the wing; the effect of this is rather startling, resembling, as it does, a wild human laugh with an admixture of the Curlew's clear note—short, loud, but with no harshness in it.

Out of three adults shot, two were obtained at the nest; for though not readily scared away, it keeps just out of gunshot as a rule. One of these caused me a most thorough *mauvais quart d'heure*, by compelling me to climb a thorny Sala tree, where, leaning against thorns of various degrees of length and sharpness, and devoured by clouds of mosquitos, I had to watch the birds circling round me for at least that time. Each time one of the pair came within range and I endeavoured to get a sight, I was threatened with the loss of my equilibrium, or the mosquitos on my face got overcrowded, and the new comers had to content themselves with experiments on the interior of my nostrils and eyes, or I found a more than usually long thorn, and the opportunity was gone. Nothing but the two eggs lying in the nest by my side kept up my patience; and though that was at last rewarded by seeing the female fall as only an eagle can, yet I descended that tree rather less of an ornithologist than on my ascent, and with sundry anathemas concerning tala trees and mosquitos.

The food of this bird consists principally of a small Cavy, very abundant in the rincones; and on dissection I have also found the remains of a Waterhen (head entire), and a rat. Once I saw a dead yellow opossum (*Didelphys crassicaudata*, Desm.) in a tree where there was a nest with eggs, doubtless brought there by the male. The opossum was a fair-sized one, and might have proved as dangerous as weasels have done in similar cases in Scotland. If at carrion (a dead sheep or horse) all the other birds, the Carancho, Chimango, and Gulls, wait till the "Aquila" has satisfied its appetite before they attempt to take their share.

I kept a wounded young bird two or three weeks; but the only points I noted connected with it were those of its claws, with which it marked me several times.

My largest adult specimens measure:—Male, length 24 inches, across the wings 57; female, length 27, across the wings 61.

Breeding-Notes.—The nest is always placed on the very summit of a tree sufficiently isolated to command a view of the neighbourhood. Large trees are preferred; and only in one case (out of six) have I found a nest in what was little more than a bush, a stunted tala' about six feet high. All these nests were rather over three feet in diameter; and one, a disused eyrie, must have been at least five feet high, showing that it had been occupied for several years. They are built of large sticks, some of which are nearly as thick as one's wrist, and the hollow in the centre cushioned with dry grass. Two eggs seem to be the number generally laid; and two clutches in my collection measure respectively $2\frac{20}{40} \times 2$, $2\frac{19}{40} \times 2\frac{1}{40}$, and $2\frac{21}{40} \times 2\frac{3}{40}$, $2\frac{28}{40} \times 2\frac{3}{40}$ inches. Colour dull white, marked with pale reddish blotches. These nests were taken on 8th December and 29th March, the latter date corresponding to the end of autumn. On each occasion I shot the females, but found the males paired again shortly afterwards.

2. Buteo erythronotus, King.

The only appearance of this species was in 1875, in the month of June, when a pair took up their abode in the woods at the head station, both of which I secured.

3. Urubitinga unicincta (Temm.).

Not uncommon, though I have only succeeded in obtaining three specimens, one being in immature plumage, and, as yet, have never met with a nest. It generally frequents woods, winding slowly amongst the trees and bushes, and keeping at no great height from the ground. Those I dissected contained remains of rats and mice.

4. Circus cinereus, Vieill.

Common, and essentially a plain-frequenting bird. The rich bright yellow of the legs and feet contrasts very prettily with the slate-blue and cinnamon-coloured plumage. Its flight is low and rather rapid, while, if its quarry should double, it loses no ground; for it turns something in the manner of a Tumbler Pigeon, going rapidly head over heels in the most eccentric and amusing fashion. Also it will raise any small bird time after time, should the latter endeavour to conceal itself in the grass, preferring, as it would seem, to strike it on the wing. Small birds form its principal prey, to which probably may be added Tuco-tucos (*Ctenomys brasiliensis*) &c. The vociferous little green Perroquet *Bolborhynchus monachus* frequently mobs this species if it ventures near the woods—an experience shared by most of our Raptores.

Notwithstanding its comparative abundance, and that all the year round, I know nothing of its breeding-habits; only like Mr. Durnford, I have been assured that it nests on the ground among the long grass.

5. Hypotriorchis femoralis (Temm.).

One male, shot in the woods at the head station, is the only specimen of the species which has yet come under my notice during the last six years.

6. Tinnunculus sparverius (Linn.).

Not altogether uncommon, but sufficiently so to make my information regarding it very meagre. With one exception, my specimens were all obtained in July and August (midwinter); and my few notes bear these dates also. The exception was a female, and was killed at the end of March (autumn). Possibly, then, it does not breed with us, but merely comes north in the winter. Mr. Durnford found it nesting in Tosca cliffs in the Patagonian valley of Chupat during the month of November; and Mr. Hudson observed it in the same country, on the Rio Negro, also during the summer months (as I infer from his paper). Consequently I am not altogether without grounds for the above hypothesis.

On the wing, as the former naturalist has already recorded, it is very swift. My own notes liken its flight to that of a Pigeon, especially when flying from tree to tree; but it has also a habit of hovering for a moment over any object, and then darting away—the first like a Kestrel, the latter swiftly as any Swallow.

It is not at all shy, even after being fired at. On one such occasion a female bird approached so close to me that I was able to bring it down with the second barrel, containing a light charge of No. 10 shot.

Small birds, and once a large locust, have been the only results of the examination of three or four crops.

7. Rostrhamus sociabilis (Vieill.).

Not uncommon, but very irregular in its appearances. Sometimes I have seen a dozen within a week, and after that not met with a single specimen for a year. It is a true marsh-frequenting and marsh-breeding species, and is gregarious in the nesting-season. In flight it is very slow, beating along over the swamps in a most leisurely manner, and every now and then remaining suspended in mid-air, the broad expanded tail working in such a way as enables it to maintain its position almost stationary. A close view (and it is by no means shy) gives one an opportunity of admiring the beautiful ruby-coloured eyes, with their darker pupils. No one of our other Raptores is such a lively customer to handle; and I once came out of a swamp on horseback carrying at arm's length, by the extremities of its wings, a wounded specimen, in a succession of buckjumps that covered me with duckweed and soaked me to the skin.

When visiting their breeding colony, I noticed that as the old birds hung suspended over me they produced a creaking sound, similar to that of a door swinging on unoiled hinges, and which was audible at some distance. This cry I do not remember having heard before or since; and it is, I think, the only one the species gives utterance to.

Its only food seems to consist of a large water-mollusk, abundant in our swamps, and the empty, but entire, shells of which I have found in the nests. These can only be obtained from the mud at the bottom; but I have never yet seen the bird fishing for them. Mr. Durnford, in his notes from Baradero, in the north of the province, writes ". . . . Food consists of water-mollusks; hence called 'Aguila de Caracoles,'" but adds nothing as to its method of obtaining them.

Breeding-Notes.—In the year 1873 I was so fortunate as to find a breeding colony in one of our largest and deepest swamps. There were probably twenty or thirty nests, placed a few yards apart, in the deepest and most lonely part of the whole "cañadon" (superlative of "cañada"). They were rarely built up from the water, like the Chimangos (*M. chimango*), but, being very slight structures, were easily supported by the "hunco" (a water-rush) at a height of from two to three feet above the water, and consisted of slight small platforms of dead "durasnillos" (a woody-stemmed water-plant), with a cup-shaped hollow in the centre, the latter lined with pieces of green hunco, particularly the flower and seed-tufted extremities. Among the nests of *R. sociabilis* I saw two or three of the Chimango (*Milvago chimango*) and a few of our common Night-Heron (*Nycticorax obscurus*, Bp. ?), of which there was also a breeding colony about a hundred yards off. During my presence the birds remained high overhead, shifting their position slightly every now and then, and uttering their creaking cry at intervals. On the 23rd November I took twenty-six eggs (no clutch exceeding three in number), while only two nests had young (two apiece). On the 30th most of the eggs were much incubated; and on the 21st December some of the young birds had flown, others were of various sizes, and only a very few nests still had eggs. There were no old nests to be seen about the colony, showing that the site had only been selected that year; and neither there nor anywhere else in our locality have I found *R. sociabilis* breeding since.

The eggs, as I have said, never exceed three to the nest; and the average of twenty-two specimens gives $1\frac{28}{40} \times 1\frac{15}{40}$ as their measurement, the largest of the series being $1\frac{35}{40} \times 1\frac{15}{40}$, and the smallest $1\frac{25}{40} \times 1\frac{14}{40}$. They much resemble those of the Sparrowhawk, and also vary greatly. The ground-colour is generally a bluish white, blotched and clouded very irregularly with dull red-brown; but the rufous tinge is sometimes absent, or is replaced by ash-grey. In short, it would take a large series of eggs in order to produce what might be called a typical set of eggs.

8. Polyborus tharus (Mol.). Carancho.

Very common, and very destructive to young lambs. The only thing in its favour is that it plays the part of scavenger admirably, soon disposing of all carrion left in the camp. Though without any true courage, it is by no means wanting in audacity, and will attack a lamb within a few yards of the shepherd, unless it should see a gun in the hands of the latter. Once I found one perched on the back of a sickly sheep, whence it dashed against the animal's head every now and then, endeavouring by fierce buffets of its wings to bring it down, and apparently knowing that the poor brute once down would never rise again. In such a case the eyes are first attacked, and then those parts where the skin is most tender. The fact of its alighting to watch for the (supposed) death of anybody who lies down to sleep or rest in the camp, is too well known to need any corroboration. But the Carancho is too wary to begin an actual attack on a human being so long as it detects any sign of life. Though I have hitherto never been a sufferer by any of its thieving propensities, some of my escapes have been very narrow, and other persons I know have not been so fortunate. Sometimes, when unable to carry a nest of large eggs, I have hidden them in some hole in the ground and covered them with weeds, purposing to pick them up on my way home; and though no Carancho had been in sight at the time, yet more than once my return has just been soon enough to save the spoil from the enemy. On one such occasion I had gathered over a hundred good eggs (*Cygnus nigricollis, Chauna chavaria, Ciconia maguari, Ardea egretta, A. candidissima, Rostrhamus sociabilis, Milvago chimango*, &c.), and, emerging from the swamp, proceeded to hide them in a thick clump of "durasnillos," carefully covering them up with branches and leaves of the same. In an hour's time I returned with a fresh load, and, to my horror, found my *cache* surrounded by over a score of Caranchos! A barrel right and left accounted for two of them and dispersed the remainder, while on riding up I was thankful to find that they had only got the length of removing most of the brushwood, not a single egg having been touched. A friend new to the country went out Duck-shooting one day. Birds were abundant, and fell in twos and threes to every shot, so that he was compelled to leave them in heaps along the edge of the swamps, though dubious if his horse could carry them all when he should come to retrace his steps. But the Caranchos saved him the trouble; for "when he got there the cupboard was bare," nothing remaining of some scores of fat Ducks but those he had last shot and various piles of feathers! I was amused once by the respect some half dozen Caranchos showed to a young Stork (*Ciconia maguari*). I had taken the latter, a half-grown bird, from its nest in a swamp, and, after tying it by the leg to a "durasnillo" on a small island, went off again into the wilderness of reeds and rushes. While there the *traro traro* of the Carancho became audible, evidently coming from the island; and, as I suspected, on hurrying back I found the young Stork surrounded by several Caranchos, forming a circle closely round him. Every now and then one would pluck up courage enough to approach the apparently helpless quarry; but the Stork showed itself an able sworder, and a sudden thrust from its long bill sent the would-be assailant away, uttering hoarse cries of fear and pain.

Once, in 1873 I think, a Carancho took advantage of my presence in a most audacious mannner. I was collecting eggs in a colony of Egrets (the nests being placed very closely together among the rushes); and this rascal kept close to me, alighting on those nests from which the birds had been driven by my approach, and breaking egg after egg. A blow from my hunting-knife (the butt-end unluckily) drove it away ultimately; and then I had to dismount and fish for the said knife in three feet of mud and water.

Perhaps the most ludicrous thing I ever saw a Carancho do was in connexion with a polecat, or skunk. Riding home about sundown one evening, I came across the latter in the camp, shuffling about in the erratic way peculiar to that odoriferous quadruped, with the said Carancho hopping along in its rear. Occasionally, when its attendant approached too closely, the polecat would stop and erect its tail in a threaten-ing manner; but the Carancho, getting over its first surprise at the proceeding, was at length emboldened to step forward and grasp the sacred caudal appendage with one claw! The next moment that too-curious Carancho was staggering about with dishevelled plumage, tearful eyes, and a general expression of blank horror and amazement expressed on its Vulture-like visage, while the polecat regarded it for a moment with a humerous "told-you-so" air before going on its peaceful way; and I remained doubled over my horse's neck in a positive ecstacy of delight at the Carancho's signal discomfiture!

All disabled or helpless creatures are the Carancho's favourite prey; and rarely, if ever, does it seize any thing that can show resistance. Sickly waterfowl often fall a prey to it accordingly; and in two such cases which I witnessed, the Caranchos did not even attempt to kill their victims, but simply holding them down on the ground and plucking the feathers off the back, began their repast there. The young of *Cygnus coscoroba* suffer severely, too, I am told.

Carrion and offal, with young birds and eggs, form its general food; and notwithstanding the warfare man wages against it, the number seems by no means diminished.

Its flight is powerful, but not generally rapid, except at sundown when it is returning to its nest. Then, indeed, it speeds along swiftly, with quick regular beats of the wings, maintaining a uniform height of a foot or two from the ground, and going in a perfectly straight line. It soars also, rising in spiral circles, but never so high as the Eagle (*Geranoaetus melanoleucus*), the Stork (*Ciconia maguari*), or the Chaha (*Chauna chavaria*). When flying it looks particularly ungraceful, the extremities of the wings being so square. It shows most to advantage when perched on the summit of a tall tree, with the head thrown back, and the whole bird outlined against a deep-blue sky. The plumage of the adult is very handsome; but that of the young bird is a monotonous dull brown, which, added to the livid mauve-colour of cere and nostrils in the latter, is more in harmony with the ill character of the species.

They are very quarrelsome amongst themselves; and a pair once came tumbling down into the lucerne patch fighting with such blind fury that they allowed one of the workmen to run up and despatch them both. Any wounded individual is set upon and killed by the others, two or three instances of which I have seen.

All night, except in the breeding-season, they roost on the summits of the largest or most isolated trees about the woods, sometimes as many as half a dozen together. When Biscacho-shooting on moonlight nights I have frequently shot them so.

The Carancho is a wary individual, but only shy when it sees a gun. Of a horseman it entertains no fear, and in the camp will hardly move out of his way, allowing him sometimes to pass within a few yards; but a human being on foot is regarded with suspicion, whether armed or not.

On the hot summer days it takes its siesta, like everybody else, choosing the shadow of a thistle in the plains, or congregating in or under the trees in the outskirts of any wood.

It pairs for life, but, with the exception of the breeding-season, is semigregarious in its habits, like the Vultures, between which and the true Raptores it forms the connecting link.

The cry is generally written *traro, traro,* and has been aptly likened to the jarring or grating sound of two pieces of wood rubbed against each other. I have heard it fully half a mile away. Usually, when giving utterance to it, the head is thrown or bent back till it touches the centre of the back. In both these respects the male and female are identical. It has also a shriller and higher modification of the above cry, which it only uses when assaulted by a stronger fellow, or when wounded by a shot, and expresses sudden terror or pain.

Breeding-Notes.—The Carancho breeds principally in the months of September, October, and November; but I have frequently taken eggs as early as the 20th of August, and as late as the 1st of December. It nests both in trees and swamps, and occasionally on the ground. In the two former cases the nest is used year after year, till in many cases it would form a fair load for a cart. The largest example of this kind that I know of is built among the "durasnillos" in one of our swamps; it rises five or six feet above the surface of the water, is nearly as broad at the base, while at the top it has the usual diameter of from two to three feet. The component materials are dead sticks (of no great size), dry thistle-stalks, and various similar rubbish, interspersed with pieces of cowhide and sheepskin, fragments of untanned saddle-housings, lassos, lariats, &c., and the bones and desiccated remains of birds and the smaller quadrupeds. The cavity for the eggs is sometimes cup-shaped, but more often shallow, and is generally thickly quilted and felted with dry grasses, wood, and hair. The female sits close, unless the passer-by should be on foot, when she immediately suspects felonious intentions and leaves the nest. Curiously enough, in the event of the nest being threatened by any such marauder as myself, the sitting bird is very shortly joined by its mate, though the latter was previously nowhere to be seen, the first intimation of its approach being a continued croaking as it comes rapidly along, close to the ground, and in a regular bee-line. Hideous then is their united bad language, as they throw back their heads and croak savagely. Once one of the two birds made a dash at me while taking the eggs, and nearly knocked off my hat; and several times one or both have alit on the tree within a yard of me; but generally they take up their position on the ground, or on a neighbouring tree, whence they occasionally rise and circle uneasily over the nest as the spoiler proceeds with his work of destruction.

In the very summit of a large tala tree in one of our woods, a colony of green Perroquets (*Bolborhynchus monachus*) had constructed their nest. A pair of Caranchos then coolly used it as a basis for their building-operations, and have continued to breed there ever since, while the Parroquets still maintain their quarters, apparently regardless of the truculent nature of their neighbours.

I have only seen three nests in the camp, one being partially raised from the ground by its position in a clump of thistles, and the other two respectively on a tuft of grass and among some "jume" (*Salicornia*) in the rincones. There were several trees near the two latter; so their preference for the ground requires some other explanation. Both were very slight structures.

The swamp-built nests are usually placed among the durasnillos and rushes, are annually augmented and repaired, and similar in construction and materials to those first described.

The eggs never exceed three; but I have frequently taken that number of fully fledged young ones in a nest; and repulsive-looking savages they are. The average measurement of thirty-one specimens gives $2\frac{16}{40} \times 1\frac{34}{40}$, the variation being from $2\frac{23}{40} \times 2\frac{4}{40}$ (an exceptionally broad specimen) to $2\frac{10}{40} \times 1\frac{30}{40}$. In colour they may be likened to the Peregrine or Icelandic Falcon's, the typical egg being dull reddish in the ground, with darker markings of the same. Two notable exceptions in my collection have a dirty white ground, with dark brown blotches at one extremity, the remainder of the egg being only spotted with that colour. From its size and fine colour, the egg of *Polyborus tharus* at once attracts the eye on examining a cabinet of Buenos-Ayrean eggs.

9. MILVAGO CHIMANGO (Vieill.). Chimango.

Equally common with the last species, and of much the same habits. Querulous, restless, quarrelsome, and prying, it makes its presence incessantly felt.

Carrion, with small snakes, frogs, insects, &c., form its food; and I have often seen it perched on the fresh sheepskins, tearing off any small scraps of meat, but never injuring the hide. As one writer has aptly said, "the Chimango is the last to leave any carcass, and may be seen running up and down inside the skeleton ribs, long after Carancho and Vulture have given them up as picked bare." Much bolder than the Carancho, it will hover closely overhead while an animal is being flayed, or alight on the ground within a yard of the operator.

Two Chimangos cannot remain within a few yards of each other in a peaceable manner. They must always be resenting imagined encroachments, and alternately attack each other accordingly. But their warfare is more productive of noise and general disturbance than bloodshed, or any thing approaching to it.

When the killing of stock takes place, the Chimango exhibits all his characteristics on the offal-ground. While the Caranchos, Storks, Cayenne Ibises, and Gulls feed peacefully enough, the Chimangos fight constantly among themselves, and, though not absolutely venturing to dispute the spoil with the above-named birds, annoy them by their knavishly audacious tricks.

They often alight on the backs of cattle, horses, and sheep; but I never saw them attack the sores to which the two latter are liable (from saddle-galls and acarus), a habit which various writers have attributed to this species. Probably the said writers are correct in their description; I only state the absence of ocular observation on my own part.

The flight of the Chimango is not strong, nor swift enough to enable it to strike any small bird on the wing. It also, like the Carancho, soars spirally, though not so high, and in smaller circles. Scores of times have I seen the following gradations, each species being represented by several individuals:—First soar Chahas (*Chauna chavaria*) till, immense as is the bird, they become mere specks in the blue sky, their cry, *cha-ha, cha-ha-lée,* being still clearly heard. Lower circle the Storks (*Ciconia maguari*), looking at that height like diminutive winged broomsticks; then follow Caranchos, croaking cynically their observations on things in general, and the insufficiency of mortality in particular; while last of all ascend Chimangos, only attaining a height of two or three hundred feet, but obnoxiously noisy to the last.

Its cry consists of a loud prolonged *whe-ew,* followed immediately by *chaw-chaw-chaw*—the first resembling a long whistle of surprise, and the latter subsiding into contempt and derision. I knew an English lady who took a thorough aversion and dislike to the Chimango on her first arrival in the country, affirming that, as soon and as often as she went out of doors, all the Chimangos personally and openly ridiculed her!

In appearance it is never repulsive, but looks ugly and uninteresting till seen within a yard or so; then, indeed, the shadings and markings of the plumage are really beautiful.

Though too energetic to take a regular siesta, like the Carancho, in the plains it seeks the shade of a cardoon or other plant during the heat of a summer day, in a very similar manner.

I have observed that in the month of June (midwinter) the Chimangos roosted at night in one of the deepest and largest swamps. But only two or three such cases have come under my notice; so this may not be a fixed habit. However, I have never found it about the woods at night.

Breeding-Notes.—My own observations on the breeding-habits of the Chimango seem to be at variance with those of all other ornithologists whose writings I have consulted. For example, Mr. Durnford writes (in his Baradero paper, to which reference has already been made) that "it nests both on the ground and in low trees or bushes, building a large structure of twigs and sticks, lined with wool and hair." And again, in his Chupat (Patagonia) notes, also previously alluded to, "Very common, nesting on the tufts of pampas grass" (October). The natives and residents in our district furnished me with data to the same effect; but, common as the bird is, all searches founded on the above information have been unsuccessful, nor have I yet had a nest brought to me from the woods or the plains. The *swamps* are where the Chimango breeds here; and since the first nests I found, in 1873, I have had annual opportunities of verifying this fact.

October and the first half of November constitute the breeding-season, my earliest eggs being dated 30th September. The site is always the largest and deepest swamp, in the centre of which a semigregarious colony is established, the number of breeding birds varying greatly, but perhaps not exceeding a dozen pairs, and the nests being placed further apart than those of *Rostrhamus sociabilis,* say ten to fifteen yards. They are placed in the centre of a tuft of "hunco," and are built up from the surface of the water to the height of about a foot—in shape neat, but slight, and rather deeply cup-shaped, constructed of short pieces of dry "hunco," and carefully quilted and lined with wool and hair. The birds usually remain perched close to the nest, and by their position and cries betray its whereabouts.

The general number of eggs is only three; but I have once seen a nest with five. The average measurement of eleven specimens is $1\frac{27}{40} \times 1\frac{14}{40}$, the largest egg being $1\frac{31}{40} \times 1\frac{16}{40}$, and the smallest $1\frac{23}{40} \times 1\frac{13}{40}$. As I likened the eggs of *Rostrhamus sociabilis* to the Sparrowhawk's, so those of the Chimango may be fitly compared to the Kestrel's in appearance. The ground-colour is reddish, specked, spotted, and blotched with the same, but darker, a pretty egg in short, though not on a par with that of *R. sociabilis.*

10. Asio brachyotus. "Ñacurutú" of the natives.

Not uncommon, frequenting thistle- and grass coverts. Seemingly more abundant in the winter months. It is said to breed in the long grass; and I heard of one such nest being found near a swamp, the eggs being two in number, and, of course, round and white; but these, unfortunately, were broken by the finder, and I still have reason to lament their loss.

11. Pholeoptynx cunicularia. Lechuza.

The habits of this little Owl are too well known for me to recapitulate them at length. Wherever there is a biscachero, or, failing that, an armadillo or tuco-tuco's burrow, one meets with a pair of Lechuzas, either on guard at the mouth of the hole, or perched on some adjacent thistle or bush. Very local in its habits, it never wanders far from its habitation, even during the night. I have often been amused at them as I raced past in a stage-coach drawn by fourteen or sixteen horses. The Owls look on in solemn wonder, and then turn their heads and regard each other in a manner so expressive of superior wisdom on their own part, and with such an implication against the sanity of the passers-by, that one cannot but feel small at the action. If a horseman intrudes on their little domain, they hover over his head with angry cries, and so escort him to some distance; but a dog is more aggressively threatened, and sometimes they dash within a few inches of its head.

They seem to live in perfect harmony with the biscachos (*Lagostomus trichodactylus*), but confine themselves to the one hole in the warren, and so perhaps do not come into actual contact with their peculiar neighbours.

At night the long-drawn soft cry *hu-hu-hu* bears a striking resemblance to the faintly heard hail of some shepherd; and one is often deluded into drawing bridle to look for the cause. This note is only uttered at night, and is quite different from the loud angry cry used during the day.

The principal item in its bill of fare is a beautiful green beetle, found abundantly on all the sandy soils; I have also found remains of small birds about the burrows.

Breeding-Notes.—Those nests I have examined have all been in sandy soils, and were evidently only enlarged holes of the tuco-tuco (*Ctenomys brasiliensis*). They ran straight in for a few feet (from five to ten), and then turned to the left, ending in an oval-shaped cavity sufficiently large to contain the sitting bird, and only a foot and a half or two feet from the surface of the ground. The eggs, four or five in number, are laid on a bed of dry *bois de vache*, sometimes with the addition of a few feathers. October, November, and December are breeding-months. The female sits close, and may sometimes be excavated with the nest. Three full-fledged young birds, dug out in the month of December, did not attempt to defend themselves, but fuffed occasionally, after the manner of their kind.

Eight eggs (from three nests) average $1\frac{17}{40} \times 1\frac{4}{40}$, varying from $1\frac{18}{40} \times 1\frac{5}{40}$ to $1\frac{15}{40} \times 1\frac{4}{40}$. In colour white, and with the usual gloss.

[To be continued.]

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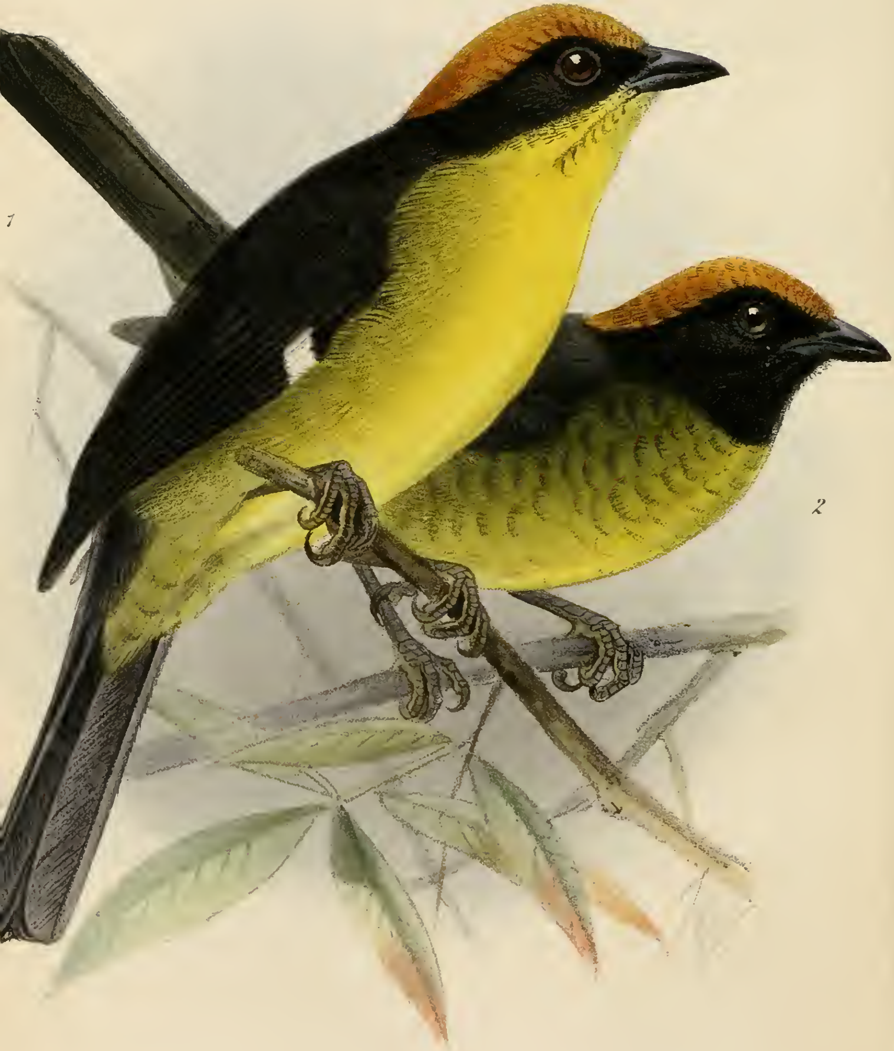

J. G. Keulemans lith.
Hanhart imp.

1. BUARREMON LATINUCHUS
2. " MELANOLÆMUS

XXXVI.—*Descriptions of some new Tanagers of the Genus* Buarremon. By P. L. Sclater and O. Salvin.

(Plate X.)

The examination of some recent additions to our collections has enabled us to discriminate four apparently new species of Buarremons of the group allied to *Buarremon rufinucha*, which we propose to describe as follows:—

1. Buarremon melanolæmus, sp. nov. (Plate X. fig. 2.)

Fuliginoso-niger, pileo castaneo; subtus flavus, olivaceo indutus, gutture nigro; hypochondriis et crisso olivaceis; subalaribus et remigum marginibus internis cinereis; rostro et pedibus nigris: long. tota 6·5, alæ 3·1, caudæ 3·0.

Hab. in Peruviâ merid., Khachupata (*Whitely*).

Mus. S.-G.

Obs. Species ab affinibus gutture nigro satìs distincta.

Mr. H. Whitely obtained a single example of this distinct species at Khachupata, in the Andes of Cuzco (11,000 feet altitude), in April 1873. It belongs to the group of *B. rufinucha*, but may be easily known by its black throat. The lores and sides of the head are black: there is no trace visible of an alar speculum, unless the greater wing-coverts are elevated, when it will be seen that just the bases of the primaries are white.

2. Buarremon spodionotus, sp. nov.

Buarremon latinuchus, Scl. P.Z.S. 1856, p. 87, et 1860, pp. 76, 85.

Cinereus, pileo et nuchâ castaneis; capitis et cervicis lateribus alis et caudâ nigris; subtùs flavus, lateribus et crisso cinereo perfusis; subalaribus et remigum marginibus internis albis, campterio flavicante; rostro nigro, pedibus corylinis: long. tota 7·0, alæ 3·1, caudæ 3·1.

Hab. in rep. Æquatorianâ: Guapulo et Calacali (*Fraser*); Sical (*Buckley*).

Mus. P. L. S. et S.-G.

Obs. A *B. latinucho* dorso cinereo et speculo alari nullo distinguendus.

We have hitherto referred this form to *B. latinuchus* (Dubus). But on looking carefully to Dubus's description, it would seem more probable that the bird which he described under that name is the Peruvian form which Salvin has designated in his MS. *B. specularis*, and which is spoken of by Taczanowski (P. Z. S. 1879, p. 228) under that name. The latter bird (Plate X. fig. 1) has a well-defined white speculum, as described by Dubus, whereas in the present species the white at the base of the primaries is quite concealed by the greater wing-coverts.

Our figure of *B. latinuchus* is taken from a skin in the collection of Salvin and Godman, procured by Buckley at Sical, in Ecuador. Sclater's collection contains an example of the same species obtained by Stoltzmann and Jelski at Tambillo, in Northern Peru.

3. Buarremon comptus, sp. nov.

Cineraceus; pileo pallidè castaneo, maculâ frontali distincta flavâ; lateribus capitis, alis et caudâ nigris; alis extùs cinereo limbatis; subtùs flavus; subalaribus albis, campterio flavicante; rostro nigro; pedibus corylinis: long. tota 7·0, alæ 3·3, caudæ 3·3.

Hab. in rep. Æquatorianâ: Maraviña (*Buckley*).

Mus. S.-G.

Obs. Species a *Buarremone spodionoto* pilei colore dilutiore et posticè circumscripto, necnon maculâ frontis flavâ distinguenda.

This species is immediately distinguishable from *B. spodionotus* by its well-marked frontal spot, which occurs also in *B. rufinuchus* of Bolivia, and to a lesser degree in *B. elæoprorus* of Antioquia. In one skin of *B. spodionotus* from Sical, in Ecuador (*Buckley*, Mus. S.-G.), there is a faint trace of a similar marking; but in four other skins of *B. spodionotus* the lores are entirely black. *B. comptus* seems also to be rather a larger bird, and of a more brilliant yellow below. The white alar spot in this species is barely discernible unless the wing-coverts are raised.

The three species now described, together with *B. rufinuchus* (d'Orb. et Lafr.), *B. latinuchus*, Dubus, *B. melanops*, Scl. et

Salv.*, and *B. elæoprorus*, Scl. et Salv.†, form a group distinguishable by their chestnut-red caps and yellow under surface, of which the seven species may be descriminated as follows:—

a. gutture nigro	1. *B. melanolæmus.*
b. gutture flavo, ventre concolori.	
b′. dorso nigro.	
b″. speculo alari nullo.	
loris nigris	2. *B. melanops.*
loris flavis	3. *B. rufinuchus.*
c″. speculo alari albo	4. *B. latinuchus.*
c′. dorso cinereo: loris nigris	5. *B. spodionotus.*
loris flavis	6. *B. comptus.*
d′. dorso olivaceo	7. *B. elæoprorus.*

4. Buarremon inornatus, sp. nov.

Buarremon brunneinuchus, Scl. P. Z. S. 1859, p. 138.

Olivaceus, alis caudâque brunnescentibus; pileo castaneo, strigâ utrinque cinnamomeâ; fronte et capitis lateribus nigris, illâ albo trimaculatâ; subtùs albus, lateribus et ventre imo cum subalaribus cinereis olivaceo indutis, campterio flavo; rostro nigro; pedibus carneis: long. tota 7·5, alæ 3·2, cauda 3·0.

Hab. in rep. Æquatorianâ: Pallatanga (*Fraser*); Jima (*Buckley*).

Mus. P. L. S. et S.-G.

Obs. Similis *B. brunneinucho*, sed torque collari nullo.

Two examples of this species, collected by Fraser at Pallatanga, were considered by Sclater to be the young of *B. brunneinuchus*. The receipt of further specimens, in exactly the same plumage, renders it necessary to separate the species.

We have not had an opportunity of examining Peruvian specimens which have been called *Arremon frontalis* by Tschudi (Faun. Per. Aves, p. 213) and *B. brunneinuchus* by Taczanowski (P. Z. S. 1874, p. 515).

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* P. Z. S. 1876, p. 253.

† P. Z. S. 1879, p. 504.

XXXVII.—*Remarks on certain Points in Ornithological Nomenclature.* By Henry Seebohm, F.Z.S.

The attempt which Strickland made to introduce order into the chaos of zoological nomenclature, by constructing a code of laws to save it from the hopeless confusion into which it was drifting, deserves the highest praise. Though these rules were carefully amended by a zoological committee, and passed by the parliament of the British Association for the Advancement of Science, no one who is familiar with the imperfections of statute-law will be surprised to learn that, like all other codes, the Stricklandian rules proved inadequate to meet the multiplicity of cases with which they had to deal. The difficulty was met by allowing a liberal interpretation of the rules when necessary, or even by tacitly ignoring them where a blind adherence to the letter of the law would have increased the confusion it was constructed to avoid. Around the Stricklandian statute law there has thus arisen an uncodified ornithological "judges' law," founded upon the practice of the best ornithologists, which has, until recently, secured the important objects at which Strickland aimed.

But, unfortunately, during the last few years three ornithological works have put in an appearance, which threaten to undo much of the good which Strickland's efforts have accomplished. Ornithological nomenclature is once more disturbed by frivolous changes, and is rapidly drifting from the position of exact scientific accuracy to that of mere popular indefiniteness. These three works, Newton's 'Birds of Britain,' Dresser's 'Birds of Europe,' and Sharpe's 'Catalogue of the Birds of the British Museum,' so far as each has proceeded, have gradually undermined the principles which Strickland endeavoured to embody in his code; so that now a state of confusion has arisen in ornithological nomenclature little, if at all, better than the pre-Stricklandian chaos. Newton, in his edition of Yarrell's 'British Birds,' has apparently ignored the practice of Strickland and other eminent ornithologists, and too frequently, in opposition to the spirit of the law, has endeavoured to carry out the British-Association rules to the "bitter end," and, as he himself admits, "regardless of consequences"! In an obscure writer such a reckless course would have been of no consequence, but pursued by Professor Newton, who is admitted by the majority of British ornithologists to be the greatest authority on ornithological literature, its effects have been truly disastrous. Even in the small instalment of Newton's work which has been hitherto published, there has been a great slaughter of the innocents. It seems very hard to have to give up *Bubo maximus, Strix brachyotus, Phylloscopus rufus, Sylvia cinerea, Sylvia hortensis,* and many other names familiar as household words to us from our childhood. Dresser, in his 'Birds of Europe,' has, however, "outheroded Herod." Wherever Newton has made a change, Dresser has blindly followed him; and in too many instances, instead of being satisfied to carry out certain of the British-Association rules to the uttermost, he has gone even further still, and given the doubtful name the benefit of the doubt, apparently for no other reason than because of its novelty. To make confusion more confounded, Sharpe, in his 'Catalogue of Birds,' after following Newton's unfortunate lead through two volumes, then turned suddenly round, and in his third volume openly violated the rules, choosing for the purpose, amongst others, an instance especially selected by Strickland for disapproval. I may be doing Sharpe an injustice in charging him with inconsistency. Probably he came to the conclusion that Newton, Dresser, and he had given the British-Association code rope enough, and that it had hanged itself before his third volume was published.

For a year or two I have urged upon several of my ornithological friends the importance of taking action on this disgraceful state of our favourite science, a position of affairs which has excited the derision of some of our continental associates, but hitherto in vain. Now that a decision is forced upon me, I have come to the conclusion that the only course open to a conscientious ornithologist, is to attempt to codify the existing ornithological "judges' law;" in fact, to alter the rules to suit the cases which have been left unprovided for in the Stricklandian code, so as to carry out, as far as possible, the great objects which that excellent reformer aimed at.

The principal objects of a code of nomenclature ought to be the following:—

1. To ensure that every genus and every species of bird shall have a definite name, about which there can be *no manner of doubt* as to the exact genus or species intended to be discriminated by such name.

2. To make as little change as possible in the names of birds, and to effect the adoption of the same name for the same bird by as many ornithologists as possible.

3. To ensure the adoption of the name given by the writer who first clearly defined the genus or species to which it belongs, as far as practicable.

The revolutionary changes introduced by Messrs. Newton, Sharpe, and Dresser, render a codification of ornithological judges' law necessary to reestablish the principles of the Stricklandian code. Perhaps the simplest way to approach this subject will be to select a few of the most flagrant offences of which the above-named writers have been guilty, to point out where these are in violation of the existing code, and, in the cases in which the letter of the law is obeyed in violation of its spirit, to draft out a rider to the present law to meet such case.

Before proceeding to these cases I should like to say a few words upon the binomial system of nomenclature. Upon this question ornithologists are divided into two camps. We have the Utopian party, who assert that ornithological nomenclature must be strictly binomial, consisting of a specific and generic name only, and the practical party, who assert that to these two names must be added the authority for the specific name. No doubt, in Utopia, where the same name is never given to two species of birds, where ornithological names are never misapplied, and where the memories of ornithologists are never at fault, such an addition is unnecessary. Among blundering mortals, like ourselves (and I know of no ornithologist who does not blunder, the blunders of ornithologists being pretty much in the direct ratio of the amount of work they do), it seems to me impossible that a name can have absolute definiteness without a reference to the person who defined it. The name quoted, with the appendix, does not become in any sense trinomial. It remains strictly binomial. The authority is no part of the name, any more than the reference to its origin, but is only quoted to give definition to it, to ensure the greatest possible scientific precision, and as a concession to the "humanity" of ornithologists, who might otherwise "err" as to the species of bird first described under the name.

Now let us take our "cases."

Saxicola stapazina, Dresser, Birds of Eur. pt. xxv.
Sterna hirundo, Dresser, Birds of Eur. pt. xii.

When Dresser transferred the name of the Black-throated Chat to the Eared Chat, and that of the Common Tern to the Arctic Tern, he placed future ornithologists upon the horns of a dilemma. Thenceforth the binomial term of *Saxicola stapazina* ceased to be a scientific term; and to give it the necessary precision to enable it to become scientific, either the circuitous term *Saxicola stapazina,* Linn., fide Dresser, or the equally objectionable term *Saxicola stapazina,* Linn. nec Temm. &c., must be used. Ornithologists will not easily forgive a writer who obliges them to reject a long familiar name. I conceive that we have no alternative but to reject these names altogether. To meet these cases I propose the following rider to Rule 12 of the Stricklandian code:—

> "The object of all rules of scientific nomenclature being to attain absolute precision, it is obvious that a name which has been extensively applied to one species ought not, under any circumstances, to be transferred to any other species in the same genus. Where any reasonable doubt attaches to the correctness of any identification, the species in possession of the name should have the benefit of the doubt, in order to avoid change. Where no doubt whatever exists that a name ordinarily attributed to one, properly belongs to another species of the

> same genus, it must be discarded altogether, but under no possible circumstance should it be transferred to another species in the same genus—a practice which cannot be too strongly condemned, as entirely destroying the scientific character of ornithological nomenclature."

Phylloscopus collibyta, Newton's ed. Yarr. Brit. B. i. p. 437; Dresser, Birds of Eur. pt. lxxiv.

It seems to me a matter of profound regret that an attempt should have been made to ignore the name of *Phylloscopus rufus* for the Chiffchaff. It is impossible to identify the *Curruca rufa* of Brisson or "la petite Fauvette rousse" of Buffon with any known bird. Daubenton's plate of "la Fauvette rousse" is equally unintelligible, though Newton and Dresser accept it as a clear definition of the Whitethroat, for which they consequently claim the name of *Motacilla rufa* of Boddaert. If the two birds had remained in the same genus it would undoubtedly have been necessary to discard the name altogether. Had Boddaert's name been otherwise unobjectionable, it must have been rejected on the ground that *Sylvia rufa* would perpetually be confounded with the Chiffchaff. On the other hand, *Phylloscopus rufus* can never be confounded with the Whitethroat.

I therefore propose to ignore altogether the specific term *rufus* until it is found attached to a bird which is clearly defined, and to call the Chiffchaff *Phylloscopus rufus* (Bechst.), since Bechstein was undoubtedly the first ornithologist who clearly defined the species. To cover cases of this kind I propose to add a clause to Rule 12, to enact that names which cannot be identified must be considered as not existing; otherwise we shall have some ultra-conscientious ornithologist giving a new name to Blyth's Reed Warbler on the ground that it is not the *Motacilla dumetorum* of Linnæus, though no one can tell to which species of the genus *Acrocephalus* this name of Linnæus was intended to apply. The existence of a phantom *Motacilla rufa* of Boddaert, and of an equally unsubstantial *Motacilla rufa* of Gmelin and Latham, ought not, in my opinion, to bar the use of *Sylvia* *rufa* by Bechstein for a bird which that excellent field-naturalist describes so accurately that no one can doubt for a moment that he is describing the Chiffchaff. I therefore propose the following rider to Rule 12:—

> "Names accompanied by descriptions so imperfect as to be incapable of identification with any known species, must be consigned to the oblivion of prelinnæan names, so that their existence shall be no bar to the adoption of the same name when given by a later writer."

This rule will also apply to and provide for the following case:—

Acrocephalus aquaticus, Newton's ed. Yarr. Brit. B. i. p. 380; Dresser, Birds of Eur. pt. li.

The Aquatic Warbler has by no means a clear title to its name. Scopoli's bird may have been either a Sedge-Warbler or an Aquatic Warbler; but his description is inconsistent with either of them. Neither Gmelin nor Latham appear to have known the bird, but to have simply copied Scopoli. Bechstein, Meyer and Wolf, and Naumann were well acquainted with the species, but identified it, probably incorrectly, with the *Motacilla salicaria* of Linnæus, a name which has been transferred from one species to another until it has long ago ceased to have any definite meaning or any scientific value. Temminck was the first writer to use the name *aquatica* for a clearly defined species; and since his name has been in general use, and has not been extensively, if at all, applied to any other species, we are, in my opinion, justified in calling the Aquatic Warbler *Acrocephalus aquaticus* (Temm.), consigning the *Motacilla aquatica* of Gmelin and the *Sylvia aquatica* of Latham to the Lethe of prelinnæan oblivion.

Turdus dubius, Dresser, Birds of Eur. pt. lviii.

The Thrush hitherto known as *Turdus fuscatus* of Pallas is christened *Turdus dubius* by Dresser, because that writer has "satisfied himself" that Bechstein's description of a Thrush which was sent to him from Coburg refers to an immature example of Pallas's bird. After carefully reading over the description, I can only come to the conclusion that Bechstein's bird is a very *doubtful* one, but that, having regard to the absence of any allusion to the chestnut on the wing-coverts, and the positive statement that the under wing-coverts were bright orange, the probabilities are that it was a Song-Thrush in first plumage, which, in consequence of being kept in a cage, retained much of the immature plumage after the first moult. Whether this was the case or not; whether it was an abnormal variety of *Turdus musicus*, or of some other Thrush, I cannot say; but it seems to me a gross violation both of the spirit and of the letter of the Stricklandian code to accept this as a clear definition of the bird hitherto known as *Turdus fuscatus*, and to attempt to supersede that name by *Turdus dubius*.

Acrocephalus arundinaceus, Newton, Ed. Yarr. B. i. p. 364; Dresser, Birds of Eur. pt. lxix.

When Meyer transferred the Great Sedge-Warbler to the genus *Acrocephalus* from the genus *Turdus*, in which it was placed by Linnæus, and in which it was retained by Gmelin, Bechstein, Meyer and Wolf (in their joint work), Temminck, in his edition then published, and later by Vieillot, he found that the specific name was already occupied by the Reed-Warbler. His scientific instincts prevented him from creating hopeless confusion by transferring the name of the Reed-Warbler to the Great Sedge-Warbler, and he very judiciously gave to the latter bird a specific name of his own, which, among continental ornithologists, it has retained ever since.

Gray appears to have been the first ornithologist to introduce confusion by applying the name of *arundinacea* to both species; but he got over the consequent difficulty by putting them into different genera. Newton further complicated matters by reuniting the genera, and retaining the name for the larger species. This he was entitled to do under the Stricklandian code, which makes no provision for cases of this kind. His unfortunate, though legal, decision has been indorsed by Harting, Blanford, Gurney, Dresser, and others, until the name has ceased to have a definite meaning, and must be rejected altogether, all Stricklandian rules or British-

Association codes notwithstanding, unless the study of ornithology is to be allowed to drift into a popular amusement, in which scientific accuracy is of minor importance.

The name *arundinaceus* having ceased to be a scientific term in the genus *Acrocephalus*, the strict letter of the law requires us to adopt that of *junco* of Pallas. This appears to me to be a case in which ornithological law may fairly be overridden by ornithological equity. Pallas had no right to substitute the prelinnæan name of *junco* for the Linnæan name of *arundinaceus*, since he quotes the latter as a synonym, and retains the species in the genus *Turdus*. I submit therefore that the Great Sedge-Warbler ought to be known by its time-honoured name of *Acrocephalus turdoides* (Meyer); and I propose to justify the proceeding by adding the following rider to Rule 12 :—

> "Names which have been in general use for many years, and which have been clearly defined, ought not to be superseded by the discovery of earlier names, comparatively unknown, except in cases where the newly discovered name accompanies the earliest clear definition of the species."

Graculus graculus, Sharpe, Cat. of Birds, p. 146.
Pyrrhocorax pyrrhocorax, Sharpe, Cat. of Birds, iii. p. 148.
Corone corone, Sharpe, Cat. of Birds, iii. p. 36.
Pica pica, Sharpe, Cat. of Birds, iii. p. 62.

It is a thousand pities that ornithologists did not retain the excellent practice commenced by Brisson of giving to the type of each genus the same specific and generic name. To revert to the practice now would, I fear, involve too much change in our nomenclature, though it would undoubtedly give to it a system and simplicity which it does not at present possess. But be this as it may, it is obviously absurd to apply the system in a few isolated cases. In the original Stricklandian code it was provided that wherever a specific name was elevated to generic rank, a new specific name must be found. At the Meeting of the British Association in 1865, this rule was reversed, and it was enacted that the specific name so promoted must be reduced to the ranks, and a new generic name must be found. This alteration in the rule still remains unrescinded. It was carried by a number of eminent ornithologists; but I cannot learn that any one of them has had the courage of his opinions; and to this day it remains a dead letter, to the standing disgrace of ornithological science. I therefore venture to propose the following compromise:—

> "Specific names that have been elevated to generic rank prior to the year 1817 shall be allowed to stand; but where such changes have been made subsequent to that date, the specific name shall be restored and another generic name found."

Hypolais languida, Dresser, Birds of Eur. pt.

This name stands as *Hypolais languida* of Hemprich and Ehrenberg, in direct violation of the Stricklandian code, but in accordance with the most approved ornithological judges' law. In Ehrenberg's description no character whatever is given by which the species may be distinguished from its near allies. It was rejected for want of a clear definition until Blanford and Dresser examined the type in the Berlin Museum. Cases of this kind are numerous; and to provide for them I propose the following rider to Rule 12:—

> "Slight errors in a description may be condoned, or omissions supplemented by reference to the type specimen, if such exist in any public museum. No type specimen shall, however, be allowed to give value to a name where no description whatever has been published."

There are doubtless some other points which I have overlooked. Perfection in ornithological, as well as in civil law, can only be attained by slow degrees. Other cases, which neither Strickland's code nor any codification of judges' law have contemplated, will continually arise and have to be provided for. My object is not to strive after an impossible perfection. Had it been so I should have delayed my paper for some years. It seems to me that the most important thing to be done is, without delay, to protest, in the name of scientific accuracy and ornithological equity, against the revolutionary attempts of Messrs. Newton, Sharpe, and Dresser to corrupt the ornithological morality of the present age.

XXXVIII.—*On a Collection of Birds from the Solomon Islands and New Hebrides.* By H. B. Tristram, F.R.S.

(Plates XI., XII.)

I have had placed in my hands for determination, by the kindness of Vice-Admiral Sir Geo. H. Richards, K.C.B., a small but very interesting collection of birds made by his son, Lieut. Richards, R.N., at Makira Harbour, San Cristoval, Solomon Islands, between the 22nd August and 3rd October in last year, consisting of thirty-three species. Of these no less than twelve are, so far as I can ascertain, as yet undescribed, while several of the others are of extreme rarity in collections, some of them being not, as yet, known to exist in any museum in this country. The fact of the whole collection having been made in a limited area shows how much yet remains to be done before the avifauna of this portion of the Pacific can be looked upon as exhausted. The exceptional beauty of many of the new species, such as the *Ceyx*, *Charmosyna*, and *Ptilopus*, renders their absence from previous collections from the Solomon Islands the more remarkable. Either previous explorers have very cursorily skimmed the island fauna, or the species must be extremely local.

1. Astur (Urospiza), sp.?

An immature bird in first year's plumage. Very like the young of *A. approximans*, but much smaller. It agrees exactly in measurements with an adult specimen of *A. torquatus* in my collection from the New Hebrides, and may probably prove to be the young of that species.

The specimen is a male. Iris bright yellow; feet orange.

2. Haliastur girrenera (Vieill.).

Two specimens, adult.

3. HALCYON SANCTA, Vig. & Horsf.

Appears to be very common.

4. HALCYON JULIÆ, Reich.

One specimen, the most distinctly marked which I have yet seen of this form, for I hesitate to assign specific value to this bird. I have, however, never seen a bird more richly coloured than this, which is evidently adult. The lores, fringe of the collar, and the whole region behind the eye are dark chestnut, with black ear-coverts, extending to the collar, which is pale chestnut, as are the under wing-coverts, flanks, abdomen, and under tail-coverts.

5. CEYX GENTIANA, sp. nov. (Plate XI.)

C. rostro nigro; capite nigro, ultramarino striato, maculâ inter nares et oculos necnon maculâ postauriculari albis, dorso medio et caudâ azureo resplendentibus, utrinque ultramarino circumdatis; alis ultramarino striatis, remigibus atris: subtùs tota alba. Long. tot. 5·8, rostr. 1·8, alæ 2·5, caud. 1·25, tars. 0·35, dig. med. 0·6, dig. post. 0·2.

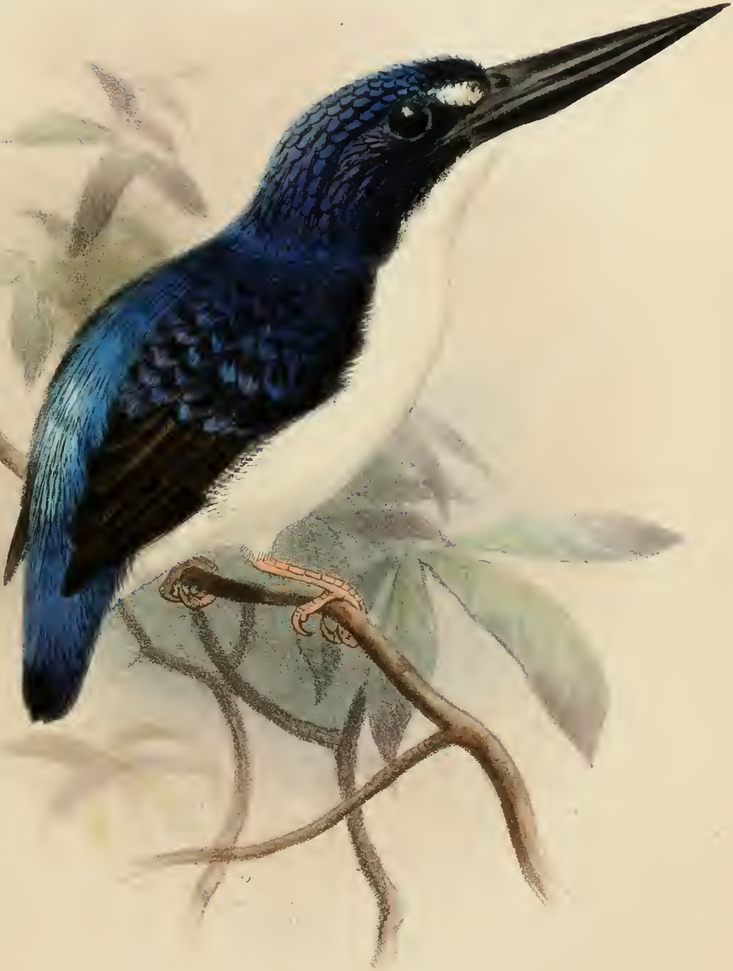
This lovely little Kingfisher bears a slight resemblance in the distribution of its colours to *Alcyone pusilla*, but it is impossible to confound them. The three shades of brilliant blue, the ultramarine spangles on the head and back of the neck, and the spotless white of the whole under surface render it one of the most chastely gorgeous of its family. It belongs to the same group as *Ceyx solitaria*, Temm., hitherto the only species known of black-billed *Ceyx*, but may be at once distinguished by the pure white of its lower surface and its considerably larger size. The iris is bluish black, and the feet flesh-coloured.

I have named it *gentiana*, as combining the colours of three species of that plant.

6. DENDROCHELIDON MYSTACEA (Less.).

7. COLLOCALIA LINCHI, Horsf. & Moore.

A single specimen, which I take to be of this species, is in the collection. It agrees with the description, and is distinct from any of the dozen species before me; but I have not been able to compare it with a typical example of *C. linchi*.



J. Smit lith.

Hanhart imp.

CEYX GENTIANA.

AMERICAN MUSEUM
CENTRAL PARK,
NEW YORK.
OF NATURAL HISTORY.

8. Hirundo tahitica, Gm.

9. Myzomela pammelæna, Sclater, P.Z.S. 1877, p. 553 (?).

A jet-black *Myzomela,* which, if not *M. pammelæna,* is very near it. The type specimen has the edgings of the insides of the remiges not so white as in this bird. In *M. pammelæna,* adult, the edgings are cinereous, but whiter in younger specimens. The iris and feet are black.

10. Philemon sclateri, G. R. Gr.

A very fine specimen of this rare bird. The iris is grey and the feet drab.

11. Dicæum æneum, Hombr. & Jacq.

One specimen, which appears to agree with Hombron and Jacquinot's description of the type, obtained in the Solomon Islands. Iris grey; feet black.

12. Pomarea castaneiventris (Verr.).

A fine male specimen of this rare and curious Flycatcher is in the collection. The locality has not hitherto been ascertained, but vaguely stated as Oceania. The only other species of the genus, *P. nigra,* being confined to the Society and Marquesas Islands, it is interesting to find this bird at so vast a distance from its single congener.

The lower mandible is horn-coloured; iris and feet black.

13. Piezorhynchus vidua, sp. nov.

P. ♂ capite nigro resplendente; collari albo, dorso nigro; uropygio albo, caudâ nigrâ, rectricibus tribus externis albo terminatis; tectricibus superioribus albis, mediis margine nigro circumdatis; remigibus nigris; mento et thorace nigris; pectore, abdomine et crisso albis. Long. tot. 5·95, alæ 3, caudæ 3, tarsi 0·8.

This species is not far removed from *P. leucotis* and *P. pileatus,* but may at once be distinguished by its black ear-coverts. Iris grey; feet ash-coloured.

14. Myiagra cervinicauda, sp. nov.

M. M. modestæ, Gr., affinis; capite plumbeo, dorso ferrugineo tincto, pectore et abdomine castaneis; rectricibus tribus exterioribus per totam longitudinem lætè cervinis, ceteris brunneis neque albo terminatis. Long. tot. 4·8, alæ 2·47, caudæ 2·42.

This is one of the group of russet-coloured *Myiagræ* so numerous in all the Pacific islands; but the very pale fawn-coloured tail, with only the two median rectrices brown, at once marks it off from every other species with which I am acquainted.

15. Rhipidura russata, sp. nov.

R. fronte, dorso et crisso castaneo-rufis; capite et occipite cum lineâ suboculari fuscis; alis caudâque fuscis, secundariis extùs et rectricibus ad basin dorso concoloribus, his omnibus albo terminatis: subtùs alba, uropygio rufo; torque subgutturali nigro. Long. tot. 5·5, alæ 2·55, caudæ 3·25.

This species approaches nearest to *R. semicollaris*, Müll., but differs in having the upper back red, the extent of red on the forehead greater, the black gorget narrower, and the white of the underparts purer. It is altogether a smaller bird.

16. Symmorphus (Lalage) affinis, sp. nov.

♂ *S.* affinis *S. leucopygio,* sed uropygio albo et colore rectricis extimæ distinguendus.

♀ mari similis quoad distributionem colorum, sed brunnea nec nigra.

This species also approaches *S. nævius* from the New Hebrides and New Caledonia, but may be at once discriminated by the absence of white on the tail-feathers, which are black in the male and brown in the female throughout their whole length, excepting a minute white tip on the outer rectrices. The black of the male is glossy, the russet-brown of the female becomes almost chestnut on the forehead. The iris is dark brown, the feet black.

17. Edoliisoma salomonis, sp. nov.

♀ *E.* suprà totum cinereum; alis et caudâ nigris, tectricibus superioribus arctè cinereo marginatis; loris nigris; gulâ, pectore, abdomine, tectricibus inferioribus et subalaribus lætè castaneis; rectricibus externis castaneis pogonio interno ad basin nigro, proximis castaneo marginatis, tertiis striâ castaneâ terminali præditis, mediis cinereo tinctis.

♀ jr. supernè cinereum, plumis undique albo terminatis; tectricibus superioribus, primariis et secundariis rufo terminatis: subtùs castaneum, maculis infrequentibus nigris. Long. tot. 8·6, alæ 4·25, caudæ 4, tarsi 0·9.

This is a distinct species, but unfortunately the collection does not contain a male. It belongs to the same group as *E. schisticeps*.

18. GRAUCALUS SUBLINEATUS, Scl. P. Z. S. 1879, p. 448, pl. xxxvi.

The iris is light yellow and the feet black.

19. GRAUCALUS, sp. inc. ♀.

I believe the specimen sent, shot at the same time and place as the preceding, and with a light yellow iris, will prove to be the female of the above species (*G. sublineatus*). It coincides exactly in all its measurements, but instead of having the under surface schistaceous, with faint narrow white wavy transverse markings, the whole of the breast, abdomen, flanks, and under tail-coverts are white, with black transverse bars, equal in width to the white spaces.

20. GRAUCALUS MONOTONUS, sp. nov.

G. suprà et subtùs cæruleo-cinereus; loris, remigibus primariis et secundariis nigris, his ad marginem cinereo lavatis; rectricibus mediis nigris cinereo adumbratis, lateralibus cinereo terminatis; rostro et pedibus nigris. Long. tot. 9·75, alæ 4·75, caudæ 4·3, tarsi 1, rostri a rictu 1·25.

This bird, which Mr. Sharpe has not been able to identify with any species known to him, in coloration most nearly resembles *G. cæsius* (Licht.) from South Africa, but is darker in colour, with a much longer and stronger bill and black lores; and the wings and tail are jet-black, instead of brown-black.

21. PACHYCEPHALUS CHRISTOPHORI, sp. nov.

P. ♂ suprà omnino olivaceus; rectricibus et remigibus fuscis, in pogonio externo olivaceo marginatis; mento et thorace flavis, torque nigro; abdomine, crisso et subalaribus flavis. ♀ mari similis, torque absente. Long. tot. 5·9, alæ 3·3, caudæ 2·5, tarsi 1.

The iris brown, the feet ash-coloured. The young male is like the female, but with faint traces of the black collar.

22. Calornis metallica, Temm.

The iris in all the specimens is noted as bright scarlet.

23. Lorius chlorocercus, Gould.

"Iris red; feet olive-coloured."

24. Trichoglossus massenæ, Bp.

I can detect no differences between this bird and specimens from New Hebrides and elsewhere.

25. Eclectus polychlorus (Scop.).

Both sexes of this widely spread species appear in the collection. They possess slight differences in coloration from specimens in my cabinets from other localities, but too trivial to permit me to discriminate them.

The note on the label marks the iris as light yellow and the feet black.

26. Charmosyna margarethæ, sp. nov. (Plate XII.)

C. fronte, regione oculari, mento, thorace et collo toto rubris; occipite nigro, pectore et tergo monili aurantiaco circumdatis, hôc nigro arctè fimbriato; tergo viridi; uropygio aurantiaco-viridi; caudâ graduatâ, rectricibus quatuor mediis rubris aurantiaco terminatis, rectricibus lateralibus ad basin rubris, utrinque viridescenti-nigro limbatis et aurantiaco terminatis; remigibus nigris, in pogonio externo viridi lavatis; abdomine rubro; crisso viridi; pedibus et rostro carneis. Long. tot. 7·8, alæ 3·85, caudæ 4, tarsi 0·3, mandib. super. 0·6, mandib. infer. 0·3.

Iris yellow; feet flesh-colour.

This is one of the smallest and, I think I may venture to say, one of the most gorgeous in colouring of this splendid group, of which several species have recently been figured by Mr. Gould in the 'Birds of New Guinea.' It comes nearest to *C. pulchella*. I have ventured to name it in compliment to the bride of H.R.H. the Duke of Connaught.

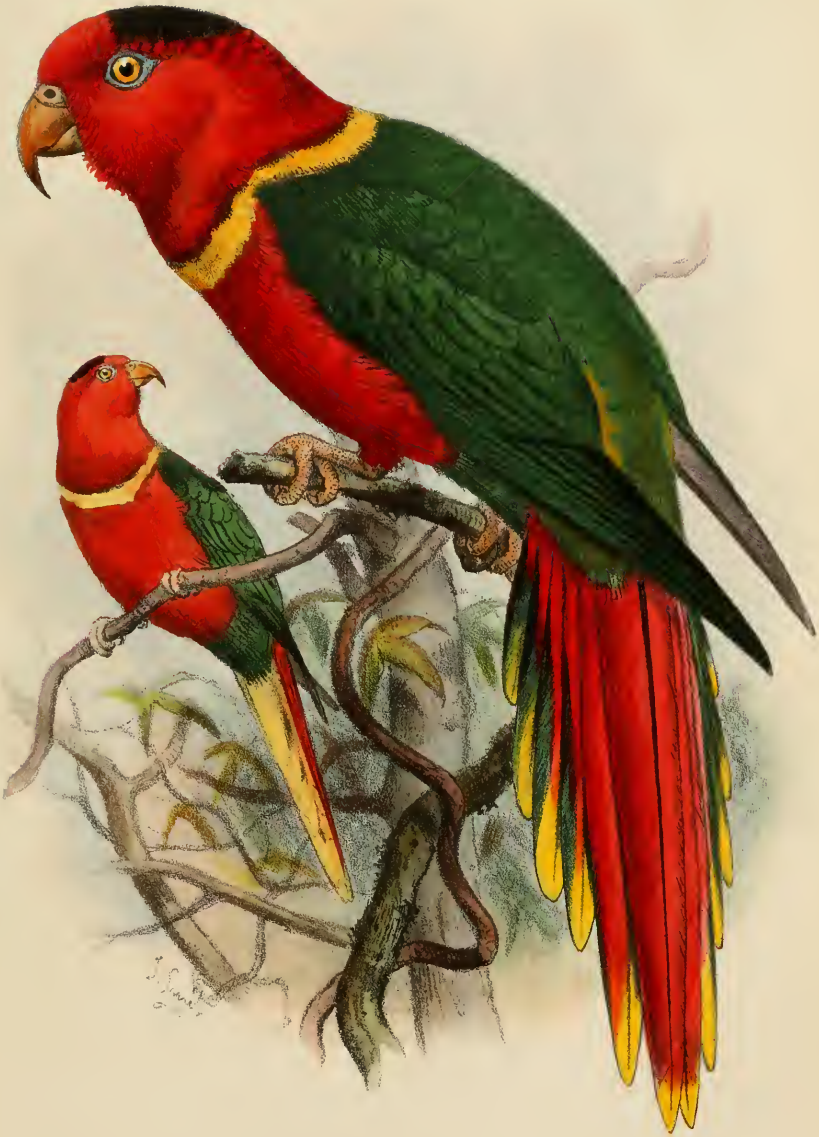
27. Geoffroyus heteroclitus (Hombr. & Jacq.).

"Iris yellow; feet ash-colour."

28. Ptilopus ceraseipectus, sp. nov.

♂ *P.* suprà totus viridis; fronte solum usque ad regionem ocularem ceraseo-purpureo; tectricibus alarum indistinctè nigro maculatis; rectricibus quatuor externis fasciâ

Ibis. 1879. Pl XII



J. Smit lith. Hanhart imp.

CHARMOSYNA MARGARETHÆ.

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OF NATURAL HISTORY

latâ viridi-nigrescente, posteà fasciâ albescenti-viridi terminatis; remigibus nigrescentibus viridi limbatis; torque pectorali flavo; pectore et abdomine ceraseis, lateribus viridibus; subalaribus schistaceis; abdomine et crisso flavis; rostro plumbeo, pedibus ceraseis. ♀ suprà et subtùs omnino viridis; abdomine et crisso flavis, quoad caudam mari similis. Long. tot. 8·2, alæ 4·6, caudæ 3·5, tarsi 0·7.

Iris bright yellow; feet dark cherry.

A very distinct species of this lovely genus. The extent of the delicate cherry-colour on the breast and abdomen seems its most conspicuous character; and from this I have named it.

29. Carpophaga pistrinaria, Bp.

Iris light red; feet cherry-colour.

30. Carpophaga (Globicera) richardsi, sp. nov.

C. cupreo-viridis; capite, cervice et tergo summo canis; jugulo albo-vinaceo, mento pallidiore; pectore, abdomine, crisso, femoribus et tectricibus caudæ inferioribus castaneis; remigibus rectricibusque atro-cyaneis viridi micantibus; ceromate tumido, rubro; pedibus rubris. Long. tot. 15·75, alæ 9, caudæ 6.

Nearly allied to *Carpophaga rubracera*, Gr., but with the head and neck ashy, like the upper back, and only the throat of a pale vinaceous pink; the whole of the rest of the under surface deep chestnut, increasing in intensity towards the lower tail-coverts.

Iris dark red; feet cherry; bill dark ash, and the knob at the base cherry-colour.

31. Macropygia arossi, sp. nov.

M. omnino intensè castanea; occipite et thorace nigro punctatis, mento pallidiore; tectricibus remigum et caudâ intensioribus; rectricibus externis maculâ subterminali nigrâ in pogonio interiore præditis; remigibus brunneis. Long. tot. 15·5, alæ 5·45, caudæ 5·95.

Very closely allied to *M. rufa*, Ramsay, from Tanna, but smaller, of much darker shade of chestnut in all its parts, and to be at once distinguished by the black stippling of the head and throat.

"Iris light drab; feet dark cherry-colour. Food berries."

32. Phlogœnas johannæ, Sclater.

One female in the collection.

Iris and beak black; feet dark plum-colour. Food berries and seeds.

33. Limosa baueri, Naum.

Limosa novæ-zealandiæ, G. R. Gray.

I may add to these notes that in Lt. Richards's collection from Havannah Harbour, Vate, New Hebrides, is a *Zosterops* closely allied to *Z. griseonota*, G. R. Gray, from New Caledonia, which I propose to name

Zosterops vatensis, sp. nov.

♂ *Z. griseonotæ* affinis, sed robustior, rostro fortissimo, thorace et collo flavis, abdomine et crisso cinereo-albis. Long. tot. 5·4, alæ 2·55, caudæ 2·2.

♀ mari similis.

This species may be discriminated from *Z. griseonota* by its very strong bill, the much greater extent of yellow on the throat and neck, and the absence of yellow on the lower tail-coverts.

XXXIX.—*Ornithological Notes from Afghanistan.*—No. I. By Lieutenant R. G. Wardlaw-Ramsay, 67th Regiment, F.Z.S., M.B.O.U.

My regiment having been ordered to reinforce the division under General Roberts, I have now an opportunity, for which I formerly hardly dared to hope, of studying the ornithology of a country comparatively speaking so little known as Afghanistan.

During my stay in these parts I propose to forward, from time to time, in hopes that they may be of some interest to readers of 'The Ibis,' notes on the birds observed. As I have no books with me, Jerdon's 'Birds of India' excepted, I have asked Colonel Godwin-Austen to be good enough to correct any errors in nomenclature that may occur in my manuscript, and also to determine such specimens as I fail to identify myself. Albeit the materials at hand are somewhat scanty, I shall endeavour to make a commencement.

Byan Kheyl, where the regiment is at present encamped, is situated at an elevation of about 7600 feet above the sea, in the valley of the Keria river, in longitude 69° 50′ and latitude 33° 56′, about eight miles to the southward of the great Safed-Koh range. On the east and south it is bounded by a long spur from the same range, through which runs the now famous Peiwar Kotal or pass. To the north-west is another spur of the Safed Koh, whilst to the south-west the valley trends away towards Ali Kheyl, where the main body of the force under General Roberts is now encamped.

The hills on all sides are covered from 7000 feet and upwards with a thick growth of pine-wood, the prevailing trees being the deodar (*Cedrus deodara*), *Pinus gerardiana*, and *P. excelsa*, whilst at lower elevations their place is taken by the juniper (*Juniperus communis*).

On the 18th April, when we arrived, the snow was still lying thick in places, and, indeed, for ten days after that we were subject to continual falls of snow, so that I was not surprised to find birds scarce. My expeditions, so far, cannot be said to have been productive of much result, chiefly from the fact that, owing to the unsettled state of the country, it has not been considered safe to venture far from camp. On first entering the pine-forests, I was struck by, what appeared to me, an almost total absence of birds; but a little search soon revealed quantities of the small Warblers (*Phylloscopi*). Of these I have obtained two species, both of which appear to be breeding. Tomtits also were particularly abundant, as might be expected, and were apparently breeding; but three species only have as yet been obtained, *Parus cinereus*, *Lophophanes melanolophus* (Vigors), and *L. beavani* (Blyth). A nest of *P. cinereus*, which I found in a hollow pine-tree (*Pinus gerardiana*) on the 1st May, contained four young ones about six days old.

Round the camp, where the trees have been cleared away, and nothing left but stunted juniper-bushes and sweet briars, birds are very abundant, but of few species. The noblelooking Lämmergeyer attracts the attention of the least observant as he sails majestically round the camp. Besides the Egyptian *Neophron,* this is the only Vulture I have seen. A few pairs of Kites (*Milvus govinda*?) only frequent the camp. The Grey Whitethroat's (*Sylvia affinis,* Blyth, No. 582, Jerdon) song is heard on all sides: the bird is excessively common, and was breeding by 27th May. The Whinchat (*Pratincola indica,* Blyth) is the commonest of all birds in the open country, perhaps excepting *Emberiza stewarti,* which is excessively abundant, and, I take it, about to nest, if some have not already commenced, for I have seen the birds collecting materials for building. The note of this bird is a very feeble imitation of that of our familiar English Yellow-hammer. Small flocks of the Short-toed Lark (*Calandrella brachydactyla*), and here and there a pair of Blue-throated Warblers (*Cyanecula suecica*), complete the list of birds which frequent the open country, so far as I have seen.

The Kestrel (*Falco tinnunculus*) is common, as usual; but Harriers are conspicuous by their absence. No Owls as yet observed; but the cry of what I take to be *Syrnium nivicolum,* Hodgson, from its similarity to that of our European Tawny Owl (*S. aluco*), is heard almost nightly. I have not, as yet, shot any Swallows or Swifts; but one species of each is common, probably *Cotile riparia* and *Cypselus apus.* Numbers of Bee-eaters arrived on the last day of April and 1st of May, but disappeared as rapidly as they came. I could not determine to what species they belonged, for they were flying at a considerable height, and travelling apparently in a north-westerly direction. It may be that these were flocks of *Merops apiaster* or *M. ægyptius* in course of migration. The Indian Roller (*Coracias indicus*) is not uncommon near the skirts of the pine-forest, and the same may be said for *Upupa epops.* I have only seen one specimen of a Cuckoo (*Cuculus canorus*).

The Alcedinidæ are very scarce, if, indeed, there are any about our mountain-streams. I have walked along the banks of streams that are teeming with fish, and have never seen a Kingfisher. In the Kuram river, however, on the other side of the Peiwar Kotal, *Ceryle rudis* was tolerably common.

Picus himalayanus is the only Woodpecker observed; it is very scarce just now, although at some period of the year it must be common, for every decayed pine-tree has one or more of its nest-holes in it. I found it, however, very abundant on the Peiwar Kotal, as well as *Certhia himalayana*, which I have not, as yet, met with down here. I had hopes of the possibility of meeting with the Great Black Woodpecker (*Dryocopus martius*), but that still remains a pleasure to come. *Sitta cinnamomeiventris* is common, both here and on the Kotal, and appears to be breeding. The Laniidæ furnish only two species, viz. *Lanius erythronotus*, common, and *L. vittatus*, Valenc., rather rare. The latter species has a very pleasing song, which I have long endeavoured to render on paper, the nearest approach I can make to it being by the syllables *fud a whee tu, fud a whee tu, tzee, tzee, tzee, foi, foi, foi*, &c., quickly repeated.

Buchanga albicaudata, A. Hay, is rather rare; indeed I have only seen one specimen on this side of the Peiwar range; in the Kuram valley it is common.

Three species of Flycatcher have been obtained, viz. *Cyornis ruficauda* (Swains.), which is common enough in the pine-forests, *Butalis griseola* (Linn.), and *Hemichelidon fuliginosa*, Hodgs., which I found in the valleys in the pine-woods, and is, I think, breeding, as all the specimens I have obtained have been males showing signs of breeding.

Petrocossyphus cyanus is the only Thrush as yet observed. No Timelidæ, not even the ubiquitous *Chatarrhœa caudata*. Neither are there any Bulbuls or Orioles to be seen.

Of the Sylviidæ I have found *Pratincola indica, Ruticilla cæruleicephala*, and *Saxicola morio*. *S. picata*, Blyth, does not seem to be found here, but I saw several pairs about the fort at Ali Musjid towards the end of March.

One of the first birds I shot after arriving here was a female of *Ruticilla cæruleicephala*. I was quite at a loss to know what I had got, never to my knowledge having read a description of the female*. It was not until three weeks later, when I secured a male, that I discovered to what species the bird belonged. What puzzled me more was, that the bird, which I observed for some time before shooting it, had more the habits of a Flycatcher than a Redstart. The plumage is of a greyish olive-brown above, rufescent on the lower back and rump, passing into deep cinnamon-chestnut on the upper tail-coverts. Tail dark brown, edged with pale rufous. The throat and breast and flanks greyish brown, belly and vent white. The tips of the tertiaries white, forming a conspicuous white band. Breeding about the 25th of May.

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* I have since observed that Mr. Hume has described the plumage of the female in 'Lahore to Yarkand,' and again in 'Stray Feathers,' vii. p. 391.

Motacilla melanope, Pall., is nearly in full summer plumage, and found in pairs about the streams. *M. alba* is also common, but still in small flocks. The *Paridæ* have been alluded to elsewhere; but I may mention that, although a specimen I have referred to *Lophophanes beavani* agrees otherwise with Jerdon's description of that bird, there is a decided trace of fulvous, if not rufous, on the white nuchal spot (*vide* Jerdon, B. of India, ii. 275).

We next come to the Corvidæ, of which only one species is to be seen, viz. *Corvus culminatus*, Sykes. *Corvus corax*, Linn., vel *lawrencii*, Hume, so common throughout the Punjâb and Kuram valley, is not found here. The Magpie, *Pica rustica* (*P. bactriana*, Bonap.), is extremely abundant, and often found in large parties of as many as twenty, sitting in ploughed fields near the villages.

Acridotheres fuscus, which was very common in the Kuram valley, does not seem to occur on this side of the Kotal. I obtained a pair of *Mycerobas carnipes*, Hodgs., in the pine-forests, but I have had no opportunity yet of studying their habits. The iris of this species is hair-brown, the maxilla is brownish, and the mandible whitish horn-colour; the legs are pale fleshy brown. Only two species of Pigeon occur, as far as I know, viz. the Blue-Rock, *Columba intermedia*?, and *Palumbus casiotis*, Bonaparte, which has exactly the same habits as our English Wood-Pigeon, and is found in flocks varying from ten to fifty. No Doves have as yet arrived.

It would appear that the majority of the species above mentioned are birds which have passed the winter here, so that

I have great hopes that when the warm weather sets in I shall be able to add a large number of species to my list. The time at my disposal for excursions to the forests is limited, as we are almost daily employed in making roads for the passage of the artillery. Consequently the valley has not been any thing like explored, and doubtless a great number of species exists even now which I have not as yet observed.

By the time that I have materials for a second contribution, I hope to be able to give information about the nidification of many of the species which appear to be going to breed here.

Since writing the above (12th May) I have found *Acrocephalus dumetorum*, Blyth, near the camp. It appears to have just arrived.

(26th May.) Nests obtained as yet are those of *Emberiza stewarti* and a *Phylloscopus*, sp., also of *Sitta leucopsis,* from which I hope to get its eggs. I have found nests in process of building of *Cyornis ruficauda* and *Muscicapa grisola,* which arrived about three weeks since. I have also got a nest of *Turdus hodgsoni* with four young ones. Large numbers of *Turtur rupicola* have come in.

XL.—*On the Orthography of some Birds' Names.*

By Henry T. Wharton, M.A., F.Z.S.

Now that the advance of science is so rapid, and the number of names employed in every branch of zoology is undergoing a proportionate multiplication, it is more than ever important that every name that obtains currency should be so correctly formed and spelt that no one who has occasion to use such a name hereafter should have any ground for modifying its aspect as promulgated by its original user.

That names, as originally proposed, should have the advantage of subsequent criticism, the following recommendation is given in § 14 of the Stricklandian code:—" When a name has been erroneously written, and its orthography has been afterwards amended, we conceive that the authority of the original author should still be retained for the name, and not that of the person who makes the correction."

I wish therefore to call attention to certain names of birds of which I do not think the orthography has yet obtained general recognition, however unanimous authorities may be in the actual spelling of the words.

In the year 1786 Blasius Merrem published his 'Avium rariorum et minus cognitarum icones et descriptiones collectæ e germanicis latinæ factæ;' and under his account of his *Penelope jacupema*, of which he quotes "*Alector brasilianus*, Klein, Hist. Av. pag. 112," as a synonym, he proposes in the following words a subdivision of this genus *Alector*:—

"Quod genus, cum multas sane species comprehendat, in plures phalanges dividendum videtur, quarum primam cum Linnæo atque Brissonio *Cracem*, eam, ad quam nostra pertinet species, *Penelopen*, tertiam, ad quam Phasianus Motmot et similes ei referendæ sunt aves, *Ortalida* appello." (Fasc. ii. p. 40.)

How any one can have read this passage and not seen that "*Ortalida*" was the accusative case governed by "appello" is indeed a marvel; but the fact remains that, to this day, "*Ortalida*" is constantly used as the name of a genus, under which Messrs. Sclater and Salvin range no less than eighteen species in their 'Nomenclator Avium Neotropicalium' (1873), p. 136. It is true that the accurate Gloger, in his 'Gemeinnütz. Hand- u. Hilfsbuch der Naturgeschichte' (Breslau, 1842), p. 373, uses the name "*Ortălis*" as if no one could have ever thought of any other form for the nominative case.

Whoever first adopted Merrem's name, evidently copied it hastily from the Latin; and his oversight seems never yet to have been seriously noticed. But there is no doubt that Merrem had in mind the classical Greek word ὀρταλίς, which mainly corresponds to the Latin *pullus* and to our "chicken," a Bœotian word (probably akin to ὄρνις) which, say Liddell and Scott (1869), passed into general poetic use.

Hence it is clear that, whenever the name is used, the genus should be called Ortalis, as the only nominative form of the feminine noun.

In 1822 F. Boie (Isis, p. 550) proposed *Cotile* as a generic name for *Hirundo riparia*, L. But, unfortunately, in 1826 (Isis, p. 971) he spelt the genus *Cotyle*; although in the same column we find "*Cynnyris*" and "*Aegythalus*," it is only the first misprint that has bred lasting mischief. Of course Gloger (Naturg. der Vögel Europa's, 1834, p. 411) knew and accepted the right spelling, and so did G. R. Gray (Hand-list, 1869, i. p. 73). But the learned Prince Bonaparte (Consp. Gen. Av. 1850, i. p. 341) indorsed *Cotyle*, and thus gave colour to the wild guess of Agassiz (Nomencl. Zool.) that the name came from κοτύλη=a cup. It is sad to see Dr. Coues ('Birds of the Colorado Valley,' 1878, p. 370) being thus misled into suggesting an analogy between a cup, such as so many other birds' nests form, and the deep cylindrical hole in which Sand-Martins commonly build. In reality, κωτιλάς is a name used by Anacreon (99) for the Swallow; and κωτίλος is a familiar classical adjective, meaning "prattling," as κωτίλλειν means "to prattle." When Boie first wrote Cotile he undoubtedly had in his mind this idea of "twittering;" and all the confusion about a "cup" has arisen from a subsequent misprint.

In P. Z. S. 1879, p. 146, Mr. Sclater describes a new Humming-bird as *Thaumasius taczanowskii*, and he appends the following note:—

"Hoc nomen ex *θαυμάσιος*, *admiratione dignus*, derivatum, 'Thaumasius,' nec 'Thaumatias' melius scribatur."

But when I look up the history of this genus *Thaumatias*, I find what seems to be its first appearance in a "Note sur les Trochilidés, par M. Charles Lucien Bonaparte" in the 'Comptes Rendus' for 1850, vol. xxx. p. 382, where it is introduced as genus "9. *Thaumatias* a pour type *Tr. Thaumatias*, L." It must have been by some printer's error that the n was dropped; for Linnæus (Syst. Nat. 1766, i. p. 489) distinctly has "*Trochilus Thaumantias*"*. His use of a capital initial to the specific name is enough to show that he intends to use a substantive, not an adjective. Certainly *Thaumatias* is a nonsense-word; but *Thaumantias* is perfectly classical. *Θαύμας* was the mythical father of Iris, or the rainbow; hence Ovid (Metam. iv. 480) calls Iris "Thaumantias," *i. e.* the daughter of Thaumas. A line in Virgil (Æn. ix. 5) is familiar to all:—

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* I use the capital initial to the specific name here advisedly; not so much because the last edition of the Stricklandian code (Mr. Sclater's,

> "Ad quem sic roseo Thaumantias ore locuta est."

The name of the genus must therefore stand as THAUMANTIAS, if it is to be quoted as "Bp. ex L." (Bonap. Consp. Av. i. p. 78). Whether, however, it can be accepted at all I leave to others to decide. From Mr. Elliot's remarks, ('Ibis,' 1878, p. 35), there seems some doubt about the applicability of the name; and it is certain that Eschscholtz long ago ('System der Acalephen,' 1829) proposed *Thaumantias* as a genus of "jelly-fishes" (Medusæ). To me it seems more than probable that Mr. Sclater's *Thaumasius* must ultimately supersede, and not merely correct, Bonaparte's *Thaumantias* for this genus of Humming-birds*.

It seems almost like sacrilege to attempt to disturb the spelling of any names used by Linnæus in his last edition of the 'Systema Naturæ' (1766); but the fact of his having spelt certain names in various ways in his different works and editions, even apart from such obvious misprints as *Scopolax* (S. N. 12th edit. i. p. 244), makes it possible that he did not set so much store by uniformity of spelling as the multiplicity of names employed at the present day necessitates. If, then, some of his names can be rectified on a really satisfactory basis, it becomes almost a duty to set about it on the earliest possible occasion.

Every writer subsequent to Linnæus appears to have spelt the name of our common Wild Duck *Anas boschas*. There seems to have been no reason for following Willughby and Ray

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1878, p. 24) allows us to do so, but because I think an author should be quoted literally, and not as we should prefer to write a name if we were using it at our own instance.

* [Failing *Thaumantias*, *Agyrtria*, Reichenbach (1854), can be used for this genus.—EDD.]

in this matter, when continental authors of the "heroic age" of ornithology, such as Gesner and Aldrovandi, were generally content with "*boscas.*" That the latter is the correct form there can be no doubt. Βοσκάς is a small kind of Duck in Aristotle (Hist. An. viii. 3, 15); βασκάς means the same in Aristophanes (Av. 885); φασκάς, which seems a cognate word of nearly similar application, occurs in Athenæus (ix. 52). By no rules of consonantal interchange could there be a substitution of χ for κ; nothing but a misprint can account for the introduction of the *h*. The coexistence of "tench" with *tinca*, and "perch" with πέρκη, afford no parallel instance. On no ground but that of the necessity of following Linnæus so blindly as even to perpetuate his errors, can any one henceforth write the specific name of the Mallard otherwise than *Anas* BOSCAS. It is, no doubt, a little matter; but any one who has vainly tried to get at the history of the word by hunting for βοσχάς in any lexicon will be grateful for the correction.

From his variable spelling of the generic name of the Wryneck it is certain that Linnæus held no very definite opinion on the matter. The "*Yunx*" of the Syst. Nat. 1766 was the "*Jynx*" of earlier editions and of the 'Fauna Suecica.' Yet it is perfectly clear that Aristotle wrote ἴϋγξ, and that the word was always a dissyllable. Witness Theocritus's constantly recurring hexameter (Id. ii. 17, 22, 27, &c.):—

"ἴϋγξ, ἕλκε τὺ τῆνον ἐμὸν ποτὶ δῶμα τὸν ἄνδρα."

The name comes from the bird's cry sounding like a repetition of ἰὔ or ἰοῦ, an interjection used to denote the loud shout of woe; whence the verb ἰύζω = I cry aloud. By the Stricklandian code, § 14, ἴϋγξ becomes in Latin IŸNX: let the name then be so written, not neglecting the notes of diæresis, and there can be no doubt on the subject for the future.

There is one word more which stands in some need of alteration. Linnæus called the Woodcock *Scolopax Rusticola* (S. N. 12th edit. i. p. 243). I cannot help thinking he meant *rusticula*, a well-known diminutive of *rusticus*, like *gallinula* from *gallina*. Had he meant a "husbandman," on the analogy of *agricola*, he must have written *ruricola*. Gloger seems to have been the first to notice this discrepancy, thus expressing himself in a note ('Schlesiens Wirbelthier-Fauna,' Breslau, 1833, p. 47) :—"*Rusticulus* (adject.) =*rusticus*; *rusticula avis* Plin. Dagegen ist *rusticola* eine nach Sinn und Etymologie gleich falsche Bildung." And Naumann followed his example. In classical times *rusticula* was Latin for some kind of Partridge or Grouse, not merely the simple feminine of the adjective; *e.g.* Pliny (Nat. Hist. x. 54), speaking of the gait of various birds, says, "ambulant aliquæ, ut cornices; . . . . currunt, ut perdices, rusticulæ," &c. It is moreover obvious, upon the face of it, that no such word as *rusticola* ever existed. We certainly, then, want more evidence than I have hitherto come across to do otherwise than quote the specific name of the Woodcock as *Scolopax* RUSTICULA.

XLI.—*On a new Species of Rail from Macquarie Island.* By F. W. Hutton, Professor of Natural Science in the Otago University.

THE bird of which the following is a description was brought from Macquarie Island last March by a sealing expedition, and was presented to the Otago Museum by Messrs. Elder and Co. It is stated to be common on the south part of the island, but difficult to catch. The specimen, which was brought to Dunedin alive, is an adult female. It is a very interesting bird, combining the wings, tail, and general style of plumage of *Hypotænidia* with the bill and legs of *Ocydromus*. The sternum approaches that of *Hypotænidia*, and is quite different from that of *Ocydromus*. From *Cabalus modestus* it differs altogether. Perhaps it approaches *Rallus dieffenbachi* more than any other species; but it is a smaller bird, with a longer wing, and the differences in plumage are considerable. If the drawing of the bill of *R. dieffenbachi* in the 'Transactions of the New-Zealand Institute,' vol. vi. p. 12, is correct, then our bird cannot be included in the same genus.

Rallus macquariensis, sp. nov.

General plumage dull brown, without any bright tints.

Top of the head dark brown, each feather slightly bordered with olive-brown; a broad streak from the base of the bill, through and below the eye, brown, passing into dark chestnut, washed with olive, on the sides of the neck; a streak from near the base of the upper mandible over the eye, enlarged backwards over the ear, grey; chin white; throat grey, passing into an indistinct transverse rufous band on the chest; breast grey, passing into dirty white on the abdomen. Feathers of the flanks black, with three white transverse bars, and tipped beyond the last bar with olivaceous brown, which forms the general tint of the flanks, unless the feathers are opened by the hand. Under tail-coverts olivaceous brown, the feathers black at the base, and a few of the central ones with white transverse bars. Back of the neck dark brown, tinged with rufous. Back dark brown, each feather rather broadly margined with olive-brown; some of the feathers on the upper part of the back with a small white spot, margined with black on each side. Primaries dark brown; the first margined externally with olivaceous brown, the inner web with five narrow white bands, which do not reach the shaft; the second with four rufous bars on the outer web, and five narrow white bars on the inner; remaining primaries with broad rufous bars on both webs, rufous being the predominant colour of the feathers, except near the tips. Secondaries like the primaries, but margined on both sides with olive-brown. Wing-coverts like the back, but the feathers more broadly margined with olive-brown; most of them with two or three white spots on each side. Under wing-coverts black, barred with white. Thighs brown. Tail dark brown, the feathers pointed.

Length 11·5 inches; expanse 16 inches; bill—culmen 1·14, height ·4, breadth ·3, length to gape 1·3; head 1·25; wing 5·5; tail 2·8; tarsus 1·4; hind toe (without claw) 1·4; inner toe 1; outer toe 1·05; hind toe ·37.

Irides brick-red. Bill and legs dusky brown. Bill rather shorter than the head, strong, conical, the culmen but little arched, not concave over the nostrils. Tarsus as long as the middle toe without claw. Third primary the longest, slightly longer than the second and fourth; the first as long as the sixth. Claw on the wing rounded, pointed, slightly curved.

The sternum is long and narrow, slightly constricted below the costal border. Coracoids separated; anterior portion between the grooves slightly concave, smooth, without any median process. Five sternal ribs articulate to the sternum, and there is a sixth flying sternal rib. Lateral processes slender, parallel, produced considerably beyond the end of the sternum, not dilated at the ends; the keel strong, well developed, with a convex exterior margin. The scapula forms a right angle with the coracoid. Length 1·33 inch; breadth ·53; depth of keel ·35; length of coracoid ·78; length of scapula 1·32.

XLII.—*On* Harpa novæ-zealandiæ (*Gmel.*). By F. W. Hutton, Professor of Natural Science in the Otago University.

As a help towards settling the disputed point as to whether there are in New Zealand one or two species of the genus *Harpa*, or whether there are two distinct races or subspecies included under *H. novæ-zealandiæ*, I have, for the last five years, carefully examined and measured every specimen belonging to that genus that has passed through my hands, and I now lay the results before the readers of 'The Ibis.'

The difference, if any, between the two species or subspecies appears to rest entirely on size. Dr. Buller says, "but for the manifest difference in size it would be impossible to distinguish the two birds" ('Birds of New Zealand,' p. 7).

Mr. Sharpe certainly says that the subspecies *H. australis** is "similar to *H. novæ-zealandiæ*, but smaller and more ashy brown above" ('Catalogue of Birds,' i. p. 374); and in a later paper Dr. Buller says, that in a comparison of *two* individuals, "*H. novæ-zealandiæ* has the bars on the upper surface far more distinct and numerous, besides being of a brighter rufous, the tail-coverts are more conspicuously marked, the bars on the tail are broader and whiter, and there is a larger amount of white on the throat, breast, and abdomen;" and he further remarks, "there are other minute points of difference, but these may be mere individual peculiarities" (Trans. N.Z. Inst. vii. pp. 213, 214). Of the twelve specimens of *Harpa* that have passed through my hands during the last five years, any one of them, so far as plumage is concerned, might be referred to either species; and as the birds mentioned by Dr. Buller in the seventh volume of the 'Transactions of the New-Zealand Institute' appear to be the only two that he has examined since writing his descriptions in the 'Birds of New Zealand,' I fail to see how he can state that some of the differences found in this pair are of specific value, while others are only individual peculiarities.

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* *H. australis*=*H. brunnea*=*H. ferox*. Dr. Buller is mistaken in saying that the name of *H. ferox* has priority over *H. australis*, for *H. australis* was given in 1841, and *H. ferox* not until 1848 (see Sharpe, 'Catalogue of Birds').

Dr. Buller's statement that the eggs of *H. australis* are smaller and lighter in colour than those of *H. novæ-zealandiæ* ('Birds of New Zealand,' p. 10) cannot rest on much evidence. It may have been taken from Mr. Potts's statement that some eggs of *H. novæ-zealandiæ,* taken from a range near the headquarters of the Rakaia, were somewhat less than usual, and of a yellowish instead of a reddish-brown colour (Trans. N.Z. Inst. ii. 1869, p. 51). Mr. Potts's observation (Trans. N.Z. Inst. vi. p. 141) that the smaller bird looks flatter about the head, and carries the wings more prominently forward than does the larger bird, is not inconsistent with the supposition that the smaller bird is the male, and the larger bird the female of one and the same species. And the verbal statement of Mr. Oakden to Mr. Potts, that the young birds in one nest were smaller than those in another nest, has no scientific value.

This being the case, I have not thought it worth while to record any differences in coloration, further than to mention whether each bird is in the adult or immature plumage;

consequently the annexed table is confined to measurements only. Every individual was examined as to its sex by myself, as well as by Mr. Jennings, taxidermist to the Museum, and in one case only is there any doubt on this point. The measurements were all taken by myself in the flesh, according to the directions given by Dr. Coues in his 'Key to North-American Birds,' p. 55. The length of the toes does not include the claws, as these are subject to much variation. The measurements are in inches and decimal parts of an inch.

It is necessary to take the measurements of the two supposed species from Dr. Buller's work; for although several of the specimens in the British Museum have the sex attached, Mr. Sharpe appears to doubt the accuracy of the labels, as he does not give their dimensions, but only quotes Dr. Buller. Now an inspection of my table will show that, according to Dr. Buller, the specimen B should be a male, and A a female, of *H. novæ-zealandiæ*, while all the rest would be males of *H. australis*. But B is a female bird, and it is too large to belong to *H. australis*; consequently we must assume, if Dr. Buller be right, that the female of *H. novæ-zealandiæ* is sometimes no larger than the male. Again, if there are two species, then, although both are found in the neighbourhood, all the males that have come into this Museum belong to *H. australis*, while the two females belong to *H. novæ-zealandiæ*.

I have no doubt that Mr. Sharpe, and also Dr. Buller, would be of opinion that there is only one species if it were not for the measurements of a few specimens, the sex of which is said to be accurately known. It is necessary therefore to examine these cases. They are three in number, and all come from the Canterbury Museum.

The first is a male of *H. novæ-zealandiæ*, mentioned by Dr. Buller at page 3 of his 'Birds of New Zealand,' the sex of which was ascertained by Dr. v. Haast. This bird is much larger than any of the males in my table, but agrees in size with the female marked B.

The second individual is a female of *H. australis*, mentioned by Dr. Buller in the introduction to his 'Birds of New

Zealand.' This bird, the sex of which was also determined by Dr. v. Haast, is said to be much smaller than the male of *H. novæ-zealandiæ*; but no measurements are given.

The third individual is also a small female of *H. australis*, mentioned by Dr. Buller in the 'Transactions of the New-Zealand Institute,' vii. p. 213. The sex of this bird was ascertained by the late Mr. Fuller, at that time taxidermist to the Canterbury Museum. It is much smaller than any female in my table.

Of these three instances, the second has been effectually disposed of by Mr. Potts, who pointed out (Trans. N.Z. Inst. vi. pp. 140, 141) that Dr. v. Haast was mistaken in supposing that he got this bird on the nest and determined its sex, as the bird in question was shot and skinned by Mr. Phillips, who presented it to Dr. v. Haast, who guessed at its sex. The two birds mentioned by Dr. v. Haast were not obtained on a nest at all, but were shot at different times by Mr. Phillips whilst attacking his poultry.

With regard to the third specimen, some doubt is thrown on the accuracy of the determination of the sex by the fact that the sex of the specimens of *Ocydromus australis*, sent by the Canterbury Museum to Dr. Finsch, the measurements of which are given in the 'Journal für Ornithologie,' 1870, p. 353, were wrongly marked, the females being made out to be larger than the males, the exact opposite being well known to be the case. It must also be noticed that this supposed female in the Canterbury Museum is of exactly the same dimensions as several of the males in my table, and is less than the measurements of the female of *H. australis* given by Dr. Buller.

With regard to the first case (the supposed male of *H. novæ-zealandiæ*), little can be said, except that its dimensions agree closely with those of my specimen B, which is a female; and I think that this observation requires confirmation before it can be accepted.

It will be noticed in the table that the length of the tarsus is nearly the same in the two sexes, but in both the females the legs were much thicker and stronger than in the males; and, notwithstanding the disparaging remarks of Dr. Buller and of Dr. Finsch, I must again point out that the sexes can be easily distinguished by the difference in the tarsi. I have myself kept and flown hawks, and I can with confidence appeal to all practical falconers, as to whether the Tiercel cannot

	A.	B.	C.	D.	E.	F.	G.	H.	I.	J.	K.	L.
	Female, adult. April 27, 1875.	Female, immature. April 10, 1875.	Male, immature. June 26, 1875.	Male, adult. May 20, 1879.	Male, immature. June 26, 1875.	Male, immature. May 29, 1875.	Male, adult. May 14, 1874.	Male, immature. July 24, 1875.	Doubtful, immature. May 28, 1879.	Male, immature. May 20, 1875.	Male, immature. May 15, 1876.	Male, immature. August 9, 1874.
Length	19·0	19·0	16·5	16·25	16·25	16·25	16·0	16·0	16·0	16·0	15·75	15·5
Extent	36·0	35·0	31·0	31·0	31·0	29·5	?	31·0	30·5	30·5	31·0	?
Wing	12·0	11·25	10·0	10·5	10·25	10·0	10·5	10·5	10·5	10·0	10·0	10·0
Tail	9·0	8·4	7·6	8·0	7·5	7·4	7·8	7·0	8·0	6·8	7·5	7·6
Culmen	1·15	1·15	1·0	1·1	1·1	1·1	1·05	1·1	·93	1·1	1·1	1·1
Bill............	·92	·95	·8	·95	·9	·88	·9	·85	·82	·9	·85	·92
„ depth	·8	·77	·65	·62	·63	·68	·6	·57	·6	·7	·63	·6
„ breadth	·58	·57	·57	·52	·55	·6	·6	·45	·55	·57	·57	·55
Tarsus	2·45	2·43	2·35	2·33	2·35	2·4	2·3	2·45	2·3	2·4	2·4	2·3
Outer toe	1·4	1·25	1·25	1·08	1·15	1·17	1·03	1·27	1·07	1·0	1·2	1·1
Middle toe............	1·98	1·73	1·6	1·7	1·65	1·6	1·6	1·75	1·53	1·6	1·6	1·6
Inner toe	1·05	1·05	·96	1·0	·95	·93	·9	1·0	·85	·93	1·05	·85
Hind toe	·95	·85	·7	·73	·75	·65	·65	·77	·72	·75	·78	·67

always be distinguished from the Falcon by the slenderness of its legs; and in this respect, as well as in the length of its toes, our Sparrow-Hawk approaches the Peregrine.

XLIII.—*On a new Pheasant from the North-west Himalayas.*

By Capt. G. F. L. MARSHALL.

PUCRASIA BIDDULPHI, sp. n.

Male. Sides of the head and back of the neck dark metallic green, with a blue gloss towards the neck; forehead and crown green, turning into sandy brown; mesial crest sandy brown, with the lateral sincipital tufts black, tipped with green. Sides of the neck white; mantle black, some of the feathers edged with stone-grey, and some with sandy brown. Back grey, each feather with a black streak down the centre; upper tail-coverts and rump grey, each feather centred buff, with a dark brown margin to the buff on each side. Tail—central feathers reddish brown, mottled with black; the remaining feathers deep brown, nearly black, mottled with chestnut on the outer web at the basal half, tipped with white, and narrowly edged with light brown. Throat and foreneck greenish black. Centre of breast and abdomen deep chestnut, each feather narrowly margined with black; sides of the breast grey, with a broad black central stripe and black shaft to each feather; flanks similar to the sides of the breast in general style, but the feathers are white-shafted, and the central stripe is much broader and has a brownish tinge instead of being pure black. Thigh-coverts somewhat similar to the flanks, but paler, and with a white central streak in the brown. Under tail-coverts deep chestnut, with a broad white tip, and a black bar dividing the white tip from the chestnut. Scapularies and tertiaries brown, with yellowish-brown edgings, and a narrow central streak of raw sienna, pale-shafted. Wings—quills brown, broadly margined with sandy yellow; the greater coverts grey, narrowly centred with black, and having the shafts tipped with white; the lesser coverts of the same type as the scapularies.

Female. Somewhat similar to the female of *P. macrolopha*, but with all the markings more strongly pronounced and of a generally darker hue. I have seen five specimens of the female of this species, but have none with me now, and I unfortunately omitted to take a detailed description at the time. In addition to the general description given above, the locality in which my specimen was obtained will be sufficient to fix the identity of the species; for the geographical distribution of this group of Pheasants is well marked.

There are, including the species now described, six kinds of "Pucras" or "Koctas" Pheasants known, all of which inhabit the vast mountainous chain which extends across Asia from Afghanistan to near the Pacific Ocean in a more or less unbroken series of ranges. Each of these species has its own particular section of this tract, in which it occurs to the exclusion of the other species; but to what extent the range of each species overlaps that of the next in geographical order is, as yet, very imperfectly known, and it is not improbable that hybrids may be met with between any two of the species on the borders of their respective ranges. It is also not impossible that they may, after all, be merely local races of the same species. The negative fact that no two different species have been found inhabiting the same locality, rather favours this view; while, on the other hand, the fact that, so far from a regular gradation of colour from west to east being perceptible, the form inhabiting Nepal has its nearest ally in the Kashmir form, and its next nearest in that from the extreme west, while the intervening form in Kumaon is most widely distinct from it, raises a presumption strongly in favour of the specific distinctness of the various races. A parallel case to this curious distribution is found among the long-tailed blue Magpies (*Urocissa*), in which the Bhotan form (*U. flavirostris*) is identical with the Kashmir form, while a distinct species (*U. occipitalis*) is found in Kumaon and the intervening region, and where it occurs the Bhotan form is absent.

The headquarters, so to speak, of the six known species, commencing from the west, are as follows:—

P. duvauceli, Northern Afghanistan and Kafiristan.
P. biddulphi, Kashmir.
P. macrolopha, Kangra to Kumaon.
P. nipalensis, Nepal and Bhotan.
P. xanthospila, Mantchuria and Western China.
P. darwini, Province of Che-Kiang, China.

P. biddulphi may be distinguished from *P. duvauceli* by the mantle, which is black edged with grey, instead of deep uniform chestnut; from *P. macrolopha* by the very broad black centrings to the feathers of the mantle and sides of the neck, and by the under tail-coverts and tail; and from *P. nipalensis* by the absence of the central chestnut stripe on the feathers of the mantle and sides of the neck.

The subjoined table gives the principal points of distinction between the Himalayan species :—

Name	*P. duvauceli.*	*P. biddulphi.*	*P. macrolopha.*	*P. nipalensis.*
Habitat	Afghanistan.	Kashmir.	Kumaon.	Bhotan.
Male, length of wing.	9″·75	8″·75	9″·37	8″·5
Light mesial crest	$\frac{1}{2}$ to $\frac{1}{3}$ shorter than the dark sincipital tufts.	Equal in length to the dark sincipital tufts.	About $\frac{1}{4}$ shorter than the dark sincipital tufts.	About $\frac{1}{5}$ shorter than the dark sincipital tufts.
Mantle	Uniform chestnut.	Black, edged with grey, and tinged with rufous at back of neck.	Grey, with a narrow central black stripe on each feather.	Black, edged with rufous, with a narrow central stripe of rich rufous.
Lanceolate feathers at side of neck.	Deep uniform chestnut.	Black, broadly margined with pure ashy grey.	Grey, with a narrow central black stripe.	Brownish black, edged rufous, or whitish, with a narrow central stripe of rich chestnut.
Under tail-coverts	Chestnut, with a black line, fringed with white, at top.	Rich chestnut, with a broad tip of pure white, separated from the chestnut by a black line.	Black, with a streak of chestnut-red down the tip and a whitish fringe.	Rich chestnut, with an oval spot of white at tip.
Tail	Margined and fringed with whitish at top.	Side feathers deep brown, conspicuously tipped with pure white.	Margined with grey and stained with rufous at tip.	Inner web black, outer web and tip chestnut, the tip fringed with whitish.

The new species, which is tolerably common in Kashmir, is named after the discoverer, Major John Biddulph, whose services to ornithological science are well known.

XLIV.—*Notes on a 'Catalogue of the* Accipitres *in the British Museum' by* R. Bowdler Sharpe (1874). By J. H. Gurney.

[Continued from p. 341.]

My late friend Mr. G. R. Gray, in his 'Hand-list of Birds,' included in his "subfamily Milvinæ"[*] the genera *Machærhamphus, Pernis, Henicopernis, Regerhinus, Cymindis* (or, more properly, *Leptodon*), *Aviceda,* and *Baza*; but Professor Schlegel, in his 'Muséum des Pays-Bas,' associates the birds comprised in these genera in a distinct group under the name of "Pernes," in which he is followed by Mr. Ridgway[†], who, however, includes amongst the Pernes the genus *Elanoides,* ranked by Professor Schlegel amongst his "Milvi." My view on this point accords with that of Professor Schlegel; and I have therefore to differ from that adopted by Mr. Sharpe, who does not admit either the Milvinæ or the Perninæ as distinct subfamilies, but merges in his "subfamily Aquilinæ" all the above-named genera, except *Aviceda* and *Baza,* which he unites under the latter name, and includes in his "subfamily Falconinæ."

The circumstance of Mr. Sharpe having placed the genus *Leptodon* in one subfamily, and *Aviceda* in another, whilst Mr. Ridgway (*l. c.*), speaking of *Leptodon,* says, "this subgenus is so very similar to *Aviceda,* that there is considerable doubt as to the propriety of separating the two" (*i. e.* even generically), seems to me to be a notable instance of the different views sometimes taken of the same facts by the most competent naturalists, especially in the matter of scientific arrangement.

All the Pernine genera consist of birds with relatively short tarsi, except *Machærhamphus,* in which the tarsus is proportionally longer, as it is also in *Rostrhamus* amongst the Milvinæ, a similarity which induces me to consider *Machærhamphus* in immediate succession to *Rostrhamus**, notwithstanding the great difference in the form of the bill. This form in each case is unique, but affords a strong contrast between the extremely elongated upper mandible of *Rostrhamus* and the remarkably contracted one of *Machærhamphus,* in which genus the bill is smaller in proportion than in any other Raptorial bird, though this peculiarity is combined with a gape proportionally larger than that of any other of the Raptores.

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[*] *Vide* 'Hand-list of Birds,' vol. i. p. 24.

[†] *Vide* 'Studies of American Falconidæ,' p. 152.

The outline of the bill and the very wide gape in both species of *Machærhamphus* may well remind the observer of the corresponding parts in the Caprimulgine genus *Nyctibius*†, as has already been noted by Mr. Hume in his article on *M. alcinus* in 'Stray Feathers,' vol. iii. pp. 269–271.

MM. Milne-Edwards and Grandidier, who give an excellent account of *M. anderssoni,* and especially of its osteology, with illustrations, in their work on the Birds of Madagascar, pp. 77–83, refer to this similarity, remarking, in speaking of that species, "il offre certaines particularités qui le rapprochent des représentants de la famille des Engoulevents;" and again, "son crâne ressemble à beaucoup d'égards, à celui d'un *Caprimulgus.*"

The principal characteristics of the genus *Machærhamphus* are detailed in the two articles above referred to; but in neither of them is reference made to two peculiarities which seem to me to be worthy of notice; the first of these is the unusual relative length of the feathers composing the under tail-coverts, the upper coverts being also long, but less remarkably so than the lower.

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* MM. Milne-Edwards and Grandidier remark, with reference to the natural position of the genus *Machærhamphus,* "C'est entre les représentants de la famille des Bondrées et ceux de la famille des Milans que doit se placer le Machærhamphe" (*vide* Ois. de Madagascar, vol. i. p. 79).

† It has sometimes occurred to me that the strange circumstance of Le Vaillant having figured and described *Nyctibius forficatus* (*vide* Ois. d'Afr. pl. 47) as a species of which he captured a pair in a hollow mimosa in Great Namaqua Land may possibly have arisen from his having so obtained a pair of *Machærhamphus anderssoni,* and when his collection was lost by shipwreck, having figured, as a substitute, a skin of the *Nyctibius,* as bearing some resemblance to the birds of which he had been thus deprived.

In illustration of this remark I may quote the following measurements, for which I am indebted to the kindness of Mr. Seebohm, who lately noted them for my use from specimens in the British Museum:—

	Tail. in.	Length of upper coverts. in.	Length of lower coverts. in.
M. alcinus from Malacca	7·	3·10	4·80
Ditto from New Guinea	7·30	2·90	4·15
M. anderssoni from Madagascar .	7·20	3·50	4·20
I may add the following measurements, taken by myself from an adult *M. anderssoni* from Madagascar in the possession of Professor Newton*		3·70	4·50

The second peculiarity which I am desirous of noticing is, that the interdigital membrane between the middle and outer toe, which exists in many birds of prey, is developed to an unusual extent in the genus *Machærhamphus*, reaching to the first joint of the outer, and beyond the first joint of the middle toe, and filling up almost the entire space between these two points.

The two species of *Machærhamphus*, *M. alcinus* and *M. anderssoni*, diverge but slightly from each other; but, in addition to the circumstance of the dimensions of the former being usually larger† than those of the latter, they appear constantly to differ in the two following points:—the peculiar carinated ridge on the upper mandible is more sharply defined by a channel on either side in *M. alcinus* than in *M. anderssoni*, and the transverse bars on the wings and tail appear to be always present in *M. anderssoni* but absent in *M. alcinus*.

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* The type specimen of *M. anderssoni*, in the Norwich Museum, appears to have these feathers equally long; but the bird being cased up, I cannot conveniently measure them.

† The only exception to this, so far as I am aware, is in the case of a pair of *M. alcinus* from the Laloki river, New Guinea, of which the measurements are given by Mr. Ramsay in the 'Proceedings of the Linnean Society of New South Wales,' p. 247; this pair appear to be smaller than any other specimens recorded, and, strange to say, the supposed female is smaller than the male. The measurements of a larger New-Guinea specimen, and also of one from Malacca, are given by Mr. Sharpe in the 'Journal of the Linnean Society (Zoology),' vol. xiii. p. 309; but in both these specimens the sex is unrecorded. Detailed measurements of

It should also be mentioned that all the specimens of *M. alcinus* which have been described (except the three from New Guinea, to which I have alluded in a preceding footnote) have exhibited an elongated occipital crest, whilst in *M. anderssoni* the crest is so short and rudimentary that it hardly deserves the name, though most of the occipital feathers are pointed and slightly prolonged, and in some individuals the prolongation is rather greater than in others*.

At the time of the publication of Mr. Sharpe's volume, *Machærhamphus alcinus* was only known as a native of the Malay peninsula: since then, Mr. Hume, in the article to which I have already referred, has recorded its occurrence in a rather more northern locality, Malewoon, at the southern extremity of the Tenasserim Province, and in the opposite direction its range has been ascertained to extend as far south as New Guinea; and I have already referred to the three specimens which have been there obtained, and to the singular fact of their being all crestless, a circumstance which may perhaps indicate that they belong to a distinct local race.

I am glad to be able to add to these recorded localities the intermediate one of the island of Borneo, having recently examined a fully crested specimen obtained in that island by

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a male, taken from the flesh, are given by Mr. Hume in the article to which I have already referred; and similar measurements of both sexes of *M. anderssoni*, also taken from the flesh, will be found in Andersson's 'Birds of Damara Land,' p. 24. The above-mentioned measurements may also be compared with those of both species given by Mr. Sharpe in his Catalogue, and with those of the female of *M. anderssoni* recorded by MM. Milne-Edwards and Grandidier (*l. c.*).

* In the article on these two species in Mr. Sharpe's Catalogue, the words at p. 343, "head very much crested," appear to have been accidentally inserted in the description of *M. anderssoni* instead of in that of *M. alcinus*.

a gentleman who consigned it to the care of Mr. Burton, the bird-preserver, of Wardour Street, to whom I am indebted for the opportunity of inspecting it.

M. anderssoni, originally obtained by the late Mr. Andersson in Damara Land, has, since then, been found in Madagascar, but not, so far as I am aware, in any intervening locality between these, its western and eastern limits.

Three of the specimens obtained in Madagascar are remarkable for the fuliginous colouring of the under surface; two of these are preserved in the Paris Museum, and have been described, and one of them figured, by MM. Milne-Edwards and Grandidier in their 'Hist. Nat. des Oiseaux de Madagascar,' pl. 25; both these specimens are there said to be females, and one of them to have been killed on the nest, of which, however, no particulars are given.

The third fuliginous specimen is in the possession of Professor Newton, to whose kindness I am indebted for an opportunity of examining it; its sex has not been recorded, but its dimensions, of which I took the following notes, lead me to believe that it is also a female:—

	inches.
Culmen (exclusive of cere) . .	·80
Wing	14·0
Tarsus	2·40
Middle toe	1·80

My examination of this example has led me to agree with the opinion expressed by Mr. Sharpe in 'The Ibis' for 1875, p. 254, that the type specimen figured in the 'Transactions of the Zoological Society,' vol. vi. p. 29, and others resembling it, are immature, and that the fuliginous phase is, in fact (as has also been asserted by MM. Milne-Edwards and Grandidier, *l. c.*), the adult dress of this species.

The following memoranda were noted by me as to the plumage of Professor Newton's fuliginous specimen:—

This bird, which was obtained in the month of June, had nearly completed a moult; the new feathers on the upper surface are blackish brown, appearing black in some lights, especially on the crown of the head, and are darker than the remaining old feathers, which are a dark chocolate-brown; the feathers of the hinder head, nape, and sides of neck have pure white bases, which occupy so large a portion of the feather as to be only partially concealed, and therefore more conspicuous than the white bases of other portions of the plumage*; the sides of the head are entirely blackish brown, except a white line above and below the eye; many old feathers on the right side of the throat and breast have white edgings, and there is a slight admixture of white in the coloration of the lower abdomen; but, with these exceptions, the entire under surface is blackish brown, the new feathers being everywhere darker than the old; the tail, which is unmoulted, is dark chocolate-brown, crossed with indistinct bars of a paler brown; five whitish spots or imperfect bars are to be found on the inner web of the external rectrices, and similar white bars are observable on the outer webs of the exterior feathers of the upper tail-coverts.

I propose now to notice the genus *Henicopernis*, consisting of a single species inhabiting New Guinea and also occurring in some of the adjacent islands. This species is nearly allied to the genus *Pernis* (which I intend to consider in my next paper), but is generically separable from it in having the foot, and especially the outer toe, considerably smaller in proportion, and also on account of the greater development of the tail and of the more elongated character of the feathers which clothe the sides of the head.

Two localities for this bird may be added to those mentioned by Mr. Sharpe, viz. the island of Misori, as recorded in Salvadori's 'Prodromus,' p. 4, and the New-Britain group of islands, whence a specimen was recently sent by the Rev. G. Brown, which, by the kindness of Dr. Sclater, I have had the opportunity of examining. It is apparently in immature dress; and as this stage is not described in Mr. Sharpe's volume, I have noted the following particulars of its plumage:—The crown and sides of the head and the entire mantle are of a uniform dark purplish brown, with the following exceptions: some feathers on the crown of the head have a white spot on both webs, the feathers of the nape have blackish-brown tips, darker than the circumjacent plumage, a conspicuous band of pale brown crosses the folded wing, extending to all the feathers except the hindermost tertial, but on the inner webs of the wing-feathers the bar is white, instead of pale brown, and these two colours are separated by a dark brown centre or shaft-mark, except on the primaries; these last have a second bar of light brown nearer the tip, and extending across both webs; the tail has three cross bars of dark brown, the lowest subterminal and succeeded by very slight traces of a pale tip; between these dark bars there are three intervening bands of pale brown; all the feathers of the under surface are dark brown, with paler edgings, but on the under wing-coverts these edgings are very slight and inconspicuous.

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* MM. Milne-Edwards and Grandidier, in describing the two fuliginous examples at Paris, give the following particulars:—"leurs parties supérieures sont d'un brun roussâtre foncé, toutes les plumes ayant leur base blanche; la nuque est coupée par un collier blanc" (*vide op. cit.* p. 77 and plate 24).

[To be continued.]

XLV.—*On the Occurrence of* Ninox borneensis *in Java, and of a large Form of* Scops lempiji *in Sumatra.* By J. H. Gurney.

The Norwich Museum has lately obtained from Mr. Whitely, of Woolwich, a *Ninox* which, Mr. Whitely informs me, he "received direct, in a large collection, from Java;" but he is unable to say in what part of that island it was obtained. The bird appears to me to be referable to the subspecies *Ninox borneensis*, and agrees closely in coloration with a specimen from Labuan in the Norwich Museum. It has five dark bars on the tail, and the following are its principal measurements:—wing 7·8 inches, tail 4·2, tarsus 1. As I am not aware that this Owl has hitherto been recorded from Java, I think it may be well to note the occurrence of the present specimen.

The Norwich Museum have also acquired two specimens of *Scops lempiji*, which were received by Mr. Whitely from Sumatra, and which are larger than those from other localities in the same collection, as will be seen by the following measurements of examples which (with one exception) are all preserved in the Norwich Museum :—

	Wing. inches.	Tarsus. inch.	Middle toe, s. u. inch.
Six from Malacca, Penang, and Singapore	5·50–6·60	1·10–1·50	·70–·90
Three from Borneo	5·70	1·30	·70–·80
One (female) from Java ..	5·70	1·20	·70
First Sumatra specimen ..	6·90	1·50	1·0
Second ditto	7·10	1·60	1·10

The two Sumatran specimens are also more thickly plumed on the tarsus and at the base of the toes than any of the others; in coloration they exhibit a medium intensity of tint between the lightest and darkest examples in the Norwich Museum, but I do not perceive in them any peculiarities of marking.

XLVI.—*On a new Thrush from the Loyalty Islands Group.*

By E. L. Layard, C.M.G. &c., and H. B. Tristram, F.R.S.

In our previous paper on the birds of the Loyalty Islands (Ibis, 1878, p. 254) we mentioned that a Maré lad in the service of Mr. W., of Chephenché, Leopold Layard's kind host during his residence on Lifu, affirmed, when giving the Maré name of the new blackbird (*Turdus pritzbueri*, L. & T.), that the Maré bird differed from that species, and was "all black." The lad was so persistent and precise in his statement, that E. L. L. lost no time in writing to a friend on the last-named island, requesting him to do his utmost to send him a specimen in alcohol, as he knew no one on the island could skin it.

On the 3rd of June last he had the pleasure of receiving from his friend a neatly packed basket of cocoanut-leaf, from which he abstracted a bottle, snugly embedded in fern-leaves.

The moment he withdrew the latter from its nest he exclaimed, "Another new Blackbird!"

We propose to designate it after the island of which it is native; and we will now describe and compare it with *T. pritzbueri* and *T. vanicorensis* of Samoa, to which latter it is most closely allied.

TURDUS MAREENSIS, sp. nov.

Male. General colour very dark smoky brown (almost black), precisely the tint of *T. vanicorensis* of Samoa. Here and there on the underside the feathers of the body show traces of a paler colour on the edges. A palish brown patch (very indistinct) from the back of the eye to the nape (this is quite wanting in *T. vanicorensis*). Upper surface of back almost (in some lights *quite*) jet-black. Lower centre of belly and over vent a patch of white and red-brown feathers; these same colours extend down the centre of each feather of the under tail-coverts. This at once distinguishes it from *T. vanicorensis,* in which these parts are immaculate, and the shafts of the tail-feathers are dark, whereas in the new bird they are very light*. Eyelid and bare space about eye yellow; bill yellow, with orange tip; legs and feet very light bright yellow. Length 7″ 3‴, wing 4″, tail 3″, tarsi 1″ 2‴, bill 1″ 2‴ (broader than in *T. vanicorensis,* but this may be caused by the dry state of the latter).

From *Turdus pritzbueri, T. mareensis* differs in being a much "slimmer" (slighter) bird (this peculiarity at once struck us and caused our exclamation), being very much darker in general colour, in the coloration of the vent and under tail-coverts, the paler legs and darker bill, and the *concolorous head and breast.* Of course to our other known species, *T. xanthopus,* it has no resemblance.

It is curious that these two islands, so near together (Lifu and Maré), should each possess its own peculiar species of Blackbird, differing entirely from the New-Caledonian species, while Tanna, so much more distant, should have one identical with Lifu. In habits, our native informant said, the Maré is similar to the Lifu bird, frequenting the dense bush, and visiting the deserted native plantations at certain seasons, while, equally with it, it was extremely shy and difficult of approach.

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* *Cf.* Tristram's remarks on *Turdus vanicorensis* (Ibis, Apr. 1879, p. 188).

Of the female we have yet no knowledge; but we trust our kind correspondent, to whom we are sending a jar of alcohol, will soon be able to fill up the hiatus.

XLVII.—*On a new Hawk of the Genus* Urospizias, *Kaup, from Bouru.* By T. Salvadori, C.M.Z.S.

Until quite recently only one specimen of the genus *Urospizias,* Kaup, from Bouru, had reached Europe. This was a young one obtained by Mr. Wallace, and mentioned by him first as *Accipiter cruentus,* Gould[*], and afterwards as *Accipiter torquatus,* Cuv.[†], he having rightly recognized that Gould's species was the same as that of Cuvier. The same specimen has been more recently assigned by Mr. Sharpe to his *Astur wallacii,* from Lombock[‡]. Having myself seen the specimen in the British Museum, I was rather inclined to follow Mr. Wallace's opinion, and, with a query, I have included Bouru among the localities inhabited by *Urospizias torquatus*[§].

Towards the end of 1878 Mr. Sharpe, having just paid a visit to the Leyden Museum, wrote to me about a new *Astur* from Bouru, of which the Leyden Museum had quite lately received a fully adult specimen, and which would be described by Prof Schlegel as a *new species.*

I was anxiously looking for the description of the new Hawk, when I received from Prof. Schlegel his "Notes from the Leyden Museum," where, under the head of *Nisus rufitorques,* among many other unjustly rejected species, I found mentioned and described the fully adult Hawk from Bouru[||].

The description being unsatisfactory and incomplete, I wrote to Prof. Schlegel asking for a more full one, which he has kindly sent. Judging from it, I have not the least doubt that Mr. Sharpe was quite right in considering the bird as belonging to a new species, which, in my forthcoming work, 'Ornitologia della Papuasia e delle Molucche,' part i. p. 64, I have already named *Urospizias pallidiceps*. Unfortunately Prof. Schlegel's full description arrived too late to be inserted in my work, where I have described the bird from Schlegel's "Notes," so that I think it convenient to publish now the more full description for the benefit of ornithologists. I shall add the quotations which, according to me, belong to this new species.

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[*] P. Z. S. 1863, p. 22.

[†] Ibis, 1868, p. 11.

[‡] Cat. B. i. p. 128 (1874).

[§] Ann. Mus. Civ. Gen. xii. p. 38. n. 28 (1878).

[||] I. p. 2 (1878).

UROSPIZIAS PALLIDICEPS, Salvad.

Accipiter cruentus, part., Wall. P. Z. S. 1863, p. 22 (Bouru).

Accipiter torquatus, part., Wall. Ibis, 1868, p. 11 (Bouru).

Astur wallacii, part., Sharpe, Cat. B. i. p. 128 (juv., Bouru).

Urospizias torquatus, part., Salvad. Ann. Mus. Civ. Gen. xii. p. 38. n. 28, 1878 (Bouru).

Nisus rufitorques, part., Schleg. Not. Leyd. Mus. i. p. 2, 1878 (Bouru).

Urospizias pallidiceps, Salvad. Orn. d. Papuasia e d. Molucche, i. p. 64, 1879 (ex Schlegelio).

"Entire head and neck to the middle of the mantle of a light greyish white, inclining to a vinous colour on the chest. Breast, belly, under tail-coverts, thigh-feathers, and under wing-coverts of a vinous rusty-red colour. Underside of quills and tail-feathers light grey. All the upper parts behind the mantle, back, outside of wings, and upperside of tail slaty grey. Cere yellow. Length of the wings 7 inches 5 lines, tail 5″ 3‴, tarsus 1″ 9‴, middle toe (without nail) 1″ 3‴, hind toe 0″ 8‴, distance from the tips of the primaries to the tips of the secondaries 2″ 4‴ (French measure)." —SCHLEGEL *in litt.*

The light greyish-white colour of the head and neck to the middle of the mantle makes this Bouru bird easily distinguishable from any allied species. I should say, from the deep uniform rusty colouring of the underparts, that its nearest ally is *U. iogaster* (Müll.), from Amboyna and Ceram.

XLVIII.—*Notices of recent Ornithological Publications.*

(Continued from p. 363.)

78. *Günther on a Land-Rail from Aldabra Island.*

[On the Occurrence of a Land-Rail (*Rallus*) in the Island of Aldabra. By Dr. A. Günther. Ann. & Mag. N. H. ser. 5, vol. iii. p. 164.]

Two specimens of Rails obtained on Aldabra Island by Capt. Wharton are here described. In colour and general dimensions they do not differ from *Rallus gularis* of Madagascar, but the wings and tarsi are much shorter in the Aldabra bird; and from this fact the author calls the bird *Rallus gularis,* var. *aldabrana.*

79. *Berlepsch on new American Birds.*

[Eine neue Gattung und neue Arten aus Südamerika. Von Hans Graf v. Berlepsch. Ornith. Centralb. 1879, p. 63.]

In this short article Graf v. Berlepsch gives the characters of a new genus of Tanagers—*Callithraupis* for *Pyranga cyanictera,* Vieillot—and describes as new species *Basileuterus cabanisi* from Venezuela, *Pachyrhamphus intermedius* from Venezuela, and *Panychlora inexpectata* from Bogota. We may remark that Bonaparte has already made a generic name for *Callithraupis,* having called this little-known bird *Cyanicterus venustus* (Consp. i. p. 240, 1850).

80. *Hartlaub on rare Birds of the Bremen Museum.*

[Ueber einige seltene Vögel der Bremen Sammlung. Von Dr. G. Hartlaub. Cab. J. f. O. 1879, p. 187.]

Gives notices and descriptions of *Coccycolius iris,* Oustalet (Bull. Ass. Sc. France, 1878, p. 158), *Loxioides bailloni* (scr. *bailieui*), Oust., and *Strix oustaleti,* Hartl. (P. Z. S. 1879, p. 295), of which examples have been lately acquired by the Bremen collection.

81. *Harvie-Brown on the Capercaillie in Scotland.*

[The Capercaillie in Scotland. By J. A. Harvie Brown. Edinburgh: 1879. Pp. 155.]

Some time ago Mr. Harvie Brown commenced an inquiry into the increase and spread of the Capercaillie in Scotland, and the information he received has been brought together to form the present work. The subject has been arranged in six parts, the first two relating to the derivation of the name "Capercaillie" and to the early history of the species in Scotland down to its extinction about the year 1760. The remaining parts give a detailed account of its reintroduction, beginning with the first unsuccessful attempts, followed by the reestablishment of the species at Taymouth in 1837–38. Then follows an account of the gradual spread of the bird, with remarks on the laws of its extension of range, its influence on other game, and the injury done by it to forests and grain crops. The present extent of the range of the species is shown on a map. Altogether Mr. Harvie Brown has spared no pains to get information on his subject, and in arranging and condensing his materials he has produced a useful and instructive book.

82. *Collett on the Norwegian Avifauna.*

[Mindre Meddelelser vedrörende Norges Fuglefauna i Aarene 1873–76. Af Robert Collett. Separat-Aftryk af Nyt Magazin for Naturvidenskaberne, vol. xxiii. Christiania: 1877.]

In this memoir Mr. Collett continues his notes on the birds of Norway, on which subject his last observations were published in 1872. More or less lengthened notices are given on all the species observed during this interval, arranged in systematic order. Those interested in the ornithology of Scandinavia should not fail to study the writings of this excellent observer.

83. *Collett's Zoogeographical Map of Norway.*

[Norvége, Carte zoo-géographique, contenant une liste complète de tous les Animaux Vertébrés de Norvége, par M. Robert Collett. 4 sheets. Christiania: 1875.]

This is a large map of Norway in four sheets, containing on one side a complete list of the vertebrates of that country known to the author in 1875 and of the localities where they are to be found: 251 species of birds are mentioned.

84. *Collett on two Birds new to Norway.*

[Om et Par for Norges Fauna nye Fuglearter. Af Robert Collett. Chr. Vid.-Selsk. Förh. 1877, No. 5.]

The first occurrences of *Motacilla melanope*, Pallas, and *Phylloscopus sibilatrix* (Bechst.) are recorded.

85. *Reichenow and Schalow on the Biography of Ornithologists.*

[Biographische Notizen über Ornithologen der Gegenwart, gesammelt von Anton Reichenow und Herman Schalow. 16 pp. 4to. 1879.]

This pamphlet contains a reprint of the short biographies of living ornithologists which have lately appeared in the 'Ornithologischer Centralblatt.' So far as Germany is concerned, the list is very complete ; but there are serious omissions in the English list, which we trust means will be found to supply, as a good general work on this subject would be most useful to all interested in our science.

86. *De Heldreich, 'Fauna of Greece.'*

[Exposition Universelle de Paris en 1878.—La Fauna de Grèce, Rapport sur les travaux et recherches zoologiques faites en Grèce et revue sommaire des Animaux qui s'y trouvent naturellement ou à l'état de domesticité, par Th. De Heldreich. Partie I. Animaux Vertébrés. 8vo. Athènes : 1878.]

The ornithological portion of this little work occupies from page 26 to 61. The number of species treated of is 331. These are arranged under their respective families as birds of summer, of winter, and of passage. The Greek names of a large number of them are given, and short notes on the circumstances under which each species is found.

87. *Dr. Coues on Private Letters of Wilson, Ord, and Bonaparte.*

[Private Letters of Wilson, Ord, and Bonaparte. Edited by Dr. Elliott Coues. The Penn Monthly, x. pp. 443–455.]

The three letters here reprinted, with an explanatory preface by Dr. Coues, are in the possession of Miss Lawson, a daughter of the engraver who executed the plates of Wilson's and Bonaparte's 'American Ornithology.' They are chiefly interesting for the light they throw on the history of the progress of the great work with which the names of these ornithologists are connected.

88. *Cecil Smith on the Birds of Guernsey.*

[The Birds of Guernsey and the Neighbouring Islands (Alderney, Sark, Jethou, Herm): being a small contribution to the Ornithology of the Channel Islands. By Cecil Smith. London: 1879. Small 8vo, pp. 223.]

This will doubtless be found a useful little book by any one visiting the Channel Islands. It is a great pity, however, that the author was compelled to omit the island of Jersey from his consideration. He explains his reasons for this omission, and we cannot but admit their validity; nevertheless the completeness of his book is sadly marred thereby. 176 species are included in the list of the birds of the islands mentioned on the titlepage. Of these, notes, more or less full, are given, detailing the circumstances under which each species has come under the author's notice.

89. *J. H. Gurney, Jr., on the Gannet on the Bass Rock.*

[The Gannet City. By J. H. Gurney, Jr. Trans. Norf. & Norw. Nat. Soc. ii. pp. 528–538.]

This is an account of the author's visit to the Bass Rock in March 1876, and a history of its well-known inhabitants, the Gannets. The Sea-Birds' Preservation Act, according to Mr. Gurney, does not seem to benefit these birds much, as the close time expires before the breeding-season is over. This is taken advantage of by gunners, to the great detriment of the birds.

90. *Sharpe on the Ornithology of New Guinea.*

[Contributions to the Ornithology of New Guinea. By R. Bowdler Sharpe, F.L.S., F.Z.S., &c.—Part V. On recent Collections from the Neighbourhood of Port Moresby, S.E. New Guinea; and Part VI. On Collections made by the Rev. W. G. Lawes in North-eastern New Guinea. Journ. Linn. Soc., Zool. xiv. pp. 626–634 and pp. 685–688.]

In these two papers Mr. Sharpe continues his notes on

New-Guinea birds, describing the contents of two collections that have recently come before him. No new species are characterized in either paper; but several important identifications of names are made, especially in the former. The second paper refers to birds collected at Walter Bay, about 60 miles east of Port Moresby; but the character of the bird-fauna seems to be quite the same as that of the latter district.

91. *Elliot's Classification of the Trochilidæ.*

[A Classification and Synopsis of the Trochilidæ. By D. G. Elliot. Smithsonian Contributions to Knowledge, 317.]

Perhaps no group of birds has been more "classified" than the Humming-birds, or more lavishly provided with generic names. Without enumerating the older attempts at arranging these birds, Gray, Bonaparte, Reichenbach, Gould, Mulsant, and others have all endeavoured to classify Humming-birds; but none of their efforts are to Mr. Elliot's liking. The task is indeed a difficult one, and, we venture to think, has not even yet been accomplished. The 426 species of Trochilidæ Mr. Elliot acknowledges he places in 120 genera. Subfamilies he rejects altogether, the genera being arranged in 49 equivalent groups, some of which consist of a single genus, others of groups of genera. In drawing the characters of these genera, Mr. Elliot depends upon the shape of the bill, its relative length, the form of the tail, and other points, but he utterly rejects the distribution of colour as of any generic value. Now, considering how very artificial and tentative the whole system must be, we think he need not have thus gone out of his way to cut out characters which certainly have their value. Still it is refreshing to find any one who will even attempt to give generic characters of such a complex family as the Trochilidæ, and for doing so we owe our thanks to Mr. Elliot. As regards nomenclature, Mr. Elliot has not, considering all things, made so many changes as might perhaps have been expected, and for this, too, we are thankful; we should have been more so if he had read his Illiger more carefully, and let our old friend *Orthorhynchus* alone. One new genus is proposed in this work, viz. *Flo-*

ricola, for the species usually placed in *Heliomaster*; and the name *Jacke* is substituted for the previously used *Circe*, and *Callipharus* for *Clotho* of Mulsant. Of species all seem to have been previously described; but a name, *rubrigularis*, is suggested for a *Petasophora* which may prove to be a distinct species. As regards references, Mr. Elliot has given all those bearing upon classification very completely; but students wishing to consult authorities on the distribution of species must, to a very great extent, examine other works.

92. *Newton on moot Points in Ornithological Nomenclature.*

[On some moot Points in Ornithological Nomenclature. By Alfred Newton, M.A., F.R.S., &c. From the 'Annals and Magazine of Natural History,' August 1879.]

This is a reply to Sclater's article in our last number (*anteà*, p. 346), and, for the convenience of those interested in the discussion, would have been better addressed to this Journal. It is not our wish to continue the controversy further; but as regards Thomas Forster's "second catalogue," referred to by Professor Newton, we may remark that there is no evidence of its date, and that it *may* have been issued several years after the first, in which case the name *Bubo ignavus* would lose its assumed precedence. No doubt Sclater made an error in overlooking this addition to Forster's tract; but it may be observed that the "second catalogue" is not to be found in several copies of this obscure work that we have consulted, and that, although the paging is continued through, the "first catalogue" is terminated by a "finis," and is, so far as one can tell, quite complete without the second.

93. *Salvadori on Birds from Sumatra.*

[Catalogo di una Collezione di Uccelli fatta nella parte occidentale di Sumatra dal Prof. Odoardo Beccari e descritta da Tommaso Salvadori. Ann. Mus. Civ. Genova, xiv. p. 169.]

Prof. Beccari, during his recent botanical expedition to Sumatra, in June 1878 and the three following months, made a collection of birds, principally on Mount Singalan (a volcanic cone of about 8900 feet altitude), where his cabin was situated at an altitude of 5000 feet, at the commencement of the virgin forest. The collection contained 506 specimens, which Prof. Salvadori refers to 179 species, of which the following 24 are described as new :—

Chrysophlegma mystacalis, p. 182.
Caprimulgus pulchellus, p. 195.
Niltava sumatrana, p. 201.
Stoparola ruficrissa, p. 202.
Rhipidura atrata, p. 203.
Pericrocotus montanus, p. 205.
Graucalus melanocephalus, p. 206.
Hemipus intermedius, p. 209.
Hyloterpe brunneicauda, p. 210.
Zosterops atricapilla, p. 215.
Stachyris bocagei, p. 223.
Turdinus rufipectus, p. 224.
Rimator albostriatus, p. 224.
Brachypteryx saturata, p. 225.
—— flaviventris, p. 226.
Myiophoneus dicrorhynchus, p. 227.
Arrenga melanura, p. 227.
Cochoa beccarii, p. 228.
Liothrix laurinæ, p. 231.
Heterophasia simillima, p. 232.
Pteruthius cameranoi, p. 232.
Prinia hypoxantha, p. 235.
Acomus inornatus, p. 250.
Peloperdix rubrirostris, 251.

Prof. Salvadori observes that the present collection contains representatives of many Indo-Chinese genera which were not found in the collection from Lampong, in South-eastern Sumatra, lately described by Lord Tweeddale (Ibis, 1877, p. 283), such as *Vivia, Chrysophlegma, Psarisomus, Niltava, Rimator, Heterophasia, Liothrix, Garrulax,* &c. The collection has, we need hardly say, been worked out by Prof. Salvadori in his usual thorough way, and the memoir is a most valuable contribution to our knowledge of the still imperfectly known ornithology of Sumatra.

94. *Salvadori's 'Prodromus of Papuan Ornithology.'*

[Prodromus Ornithologiæ Papuasiæ et Moluccarum.—VII. Passeres, Hirundinidæ, Muscicapidæ. Ann. Mus. Civ. Genov. xiv. pp. 490–508.]

Of Hirundinidæ only three species are found in the region treated of by Prof. Salvadori, all of which are well-known species. Of Muscicapidæ, however, 106 species are enumerated, and the exact localities where each has been found given; to these is added a list of six others described by Mr. Ramsay, none of which have as yet come under Prof. Salvadori's notice. This Prodromus, like its predecessors, is a forerunner of the comprehensive work which is now being elaborated by our untiring fellow labourer.

95. *D'Albertis and Salvadori on Birds of the Fly River.*

[Catalogo degli Uccelli raccolti da L. M. D'Albertis durante la seconda e terza esplorazione del Fiume Fly negli anni 1876 e 1877. Per L. M. D'Albertis e T. Salvadori. Ann. Mus. Civ. Genov. xiv. pp. 21–131.]

This is another very important contribution to the knowledge of the birds of New Guinea, being based upon the second and third collections made by Signor D'Albertis during his excursions up the Fly river. 173 species of birds were actually obtained, and ten others observed during the expedition. Nine species are described for the first time, viz.:—*Aprosmictus callopterus, Trichoglossus cæruleiceps, Chætura novæ-guineæ, Rectes brunneiceps, Dicæum rubrigulare, Dicæum albopunctatum, Poodytes albolimbatus, Munia leucosticta,* and *Megacrex inepta,* the last named being referred to a new genus. In addition to these a *Paradisea* is described as *P. novæ-guineæ* in a note at the end of the paper, the bird being intermediate between *P. apoda* and *P. raggiana.* The large series of specimens obtained by Signor D'Albertis, and fully described in this paper, seem to show that the passage of *P. apoda* into *P. raggiana* is quite gradual; and a number of these intermediate birds were obtained where the ranges of the two species osculate. There is also a full account of *Casuarius beccarii,* with woodcuts of the heads and wattles of several specimens.

96. *'Bulletin' of the Nuttall Ornithological Club.*

[Vol. iv. No. 2, April, No. 3, July.]

Our transatlantic contemporary seems to be in a thriving condition, containing no lack of interesting papers, chiefly on the birds of North America. In the April number Dr. Elliott Coues has one of his exhaustive articles, this time selecting *Hesperiphona vespertina* as his theme. Mr. Brewster, in notes on the habits and nesting of certain rare birds of Texas, includes an interesting account of the nesting of *Dendrœca chrysoparia,* which has at last been traced to its home in Comal County, Texas. Mr. Brewster gives also an account of *Vireo atricapillus,* which will be read with interest. Mr. Cory records the capture of *Dendrœca kirklandi* in the Bahamas.

In the July number Mr. Ridgway has an article on zoological nomenclature, wherein the best method of treating transitional forms is discussed, Mr. Ridgway being disposed to revert to the practice of Linnæus in certain cases, when the subspecies, or whatever it may be called, has prefixed to its name a letter of the Greek alphabet. Mr. Henshaw has an instructive account of the Thrushes allied to *Turdus pallasi,* birds with which he is familiarly acquainted. Dr. Brewer gives an article on *Bucephala islandica,* now known in America as the Rocky-Mountain Golden-eye. Amongst the notices of rare birds Mr. Purdie records the existence in collections of three specimens of *Helminthophaga leucobronchialis,* making eight that are now known, and Mr. Covert sends a note on the capture of the ninth specimen of *Dendrœca kirklandi* at Ann Arbor, Michigan.

97. *Gundlach's 'Ornithology of Cuba.'*

[Contribucion a la Ornitologia Cubana. Por el Dr. Juan Gundlach. Habana: 1876. Large 8vo, pp. 364.]

In this volume, which has only recently reached us, the veteran ornithologist of Cuba, Dr. Gundlach, has collected together all the various papers that he has written on the birds of Cuba, and incorporated them into a work the great utility of which can hardly be overestimated. In addition to his own work, Dr. Gundlach has examined critically that of his predecessors over the same ground, from the paper of Vigors, published in 1827, the great work of La Sagra, and the contributions of Poey, Lembeye, and others. We have thus a book which deals thoroughly with the subject, the value of which is enhanced by the copious notes concerning each species, which Dr. Gundlach, as an experienced field-naturalist, is especially fitted to write. In arranging his subject the synonymy and references are placed at the end of the volume, away from the account of each species. This is no practical inconvenience, as a copious index makes references easy. The number of species recorded as having been found in Cuba is 255.

XLIX.—*Letters, Announcements, &c.*

We have received the following letters, addressed to the Editors of 'The Ibis:'—

Noumea, New Caledonia.
May 10, 1879.

Sirs,—The accompanying extracts from a letter from Mr. Leopold Layard may amuse some of the "brethren," as illustrating the kind of company into which ornithology brings us! A previous letter describes the peril they were in on their voyage to Vate (Sandwich Island), whence he writes. "A pitch-dark night, torrents of rain, a sudden drop of the wind, and a strong current setting them on a reef!" Towing by boats and sweeps saved them. I suspect a badly manned trader would have come to utter grief.

L. L. writes from Havanna Harbour, May 3rd, "Just off for Tapua* if possible, and Makira† certainly. I came back from G.'s yesterday; had a bad time of it there, as it rained the whole while‡, and the bush was impenetrable, last year's hurricane having blown down so much, which is now all overgrown with creepers. I got a fine male *Ptilopus correi*, a *Myiolestes*, new to us §, *Halcyon juliæ*, *Cuculus bronzinus*, *Glyciphila* (*flavo-*

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* "Tapua," or "Tapooa," is one of the Santa-Cruz group, where our dear old friend Commodore Goodenough was killed by the natives. On this island the natives are very friendly.—E. L. L.

† Makira is a fine harbour in San Cristoval Island, Solomon group.—E. L. L.

‡ It has been the same here for more than a month, and I hear the bad weather has extended far and wide over the South-Sea Islands.—E. L. L.

§ Mr. Ramsay, of Sydney, has described a *Myiolestes* from the New Hebrides; but I do not know its name.—E. L. L.

tincta probably), and three lovely little Parrakeets, new to us—a beautiful shining green, with coral beaks and legs, red under throat, yellow under tail, and yellow tip to the outer tail end*. I heard "Malous"†, but could not get near them in the bush; got one fine egg. Natives would not hunt, as an old cannibal chief, from whom G. bought his land, had sent them an order to kill two fat young men for him!! and when they refused, said he would lurk about their village until he had killed the two! I asked them why they did not shoot him first. They said he was the oldest man on the island, and his skin was so tough, a ball would glance off it as from a stone! and solemnly warned me not to go into the bush, for he would eat me!! There have been some rare doings in the cannibal line at G.'s, of which I will tell you hereafter.

"I saw one of those rare *Lalages* ‡ that I got last trip. He lit close to me, with an arrow of sunlight glancing on him, and looked beautiful! As I raised my gun a confounded "Yellow-belly" (*Pachycephala*) went at him, and away they both flew, fighting * * * I am just going on shore to try for a brown Swift (*Collocalia cinerea*) before we go."

From Makira L. L. goes on to New Guinea and New Britain, where, in Blanche Bay, they are to meet the Commodore. His further movements depend on circumstances; but he will make good use of his time, I have no doubt.

E. L. Layard.

P.S. Since the foregoing was written a gentleman has arrived here from Havanna Harbour, which he reached some ten days or a fortnight after L. L. left. He tells me the people are still talking of the shooting of the three Parrakeets as of something remarkable, as they have not been seen on the island for the last thirty years. It is supposed that the long prevalence of bad weather has driven them from some other island, their proper home. E. L. L.

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* This is probably the rare *Trichoglossus palmarum* (Forst.); but if so, the figure given of it in the 'Cruise of the 'Curaçoa'' requires amendment as regards the coloration of the bill and legs.—E. L. L.

† Lately described from a specimen shot by him as *Megapodius layardi*, Tristram. These birds were the special object of his search.—E. L. L.

‡ *L. banksiana*, G. R. Gray.—E. L. L.

Noumea, May 22, 1879.

SIRS,—At page 375 of 'The Ibis' for 1879, Dr. T. M. Brewer, of Boston, U.S., records that *Tringa subarquata* has been discovered breeding in the district of Christianshaab, in the Inspectorate of North Greenland. If the circumstances of the case, as detailed by Dr. Brewer, bear investigation, and it is a fact that the Curlew Sandpiper has been found nesting in North Greenland, it is a very astonishing addition to the ornithology of that region. I trust that I may not be deemed hypercritical or ungenerous in suggesting that, if the alleged nesting of the Curlew Sandpiper in North Greenland rests on no stronger evidence than that recorded by Dr. Brewer in 'The Ibis,' it must at any rate be received with caution. The ornithology of the west coast of Greenland, as far north as the district of Upernivik, or, in other words, to nearly the seventy-fourth parallel of north latitude, has received careful investigation by a number of eminent Danish naturalists, both resident and non-resident in Greenland, embracing such well-known names as Fabricius, Holböll, and the Reinhardts. The Curlew Sandpiper has not been recorded by these observers and naturalists, as even an uncommon visitor to the coasts of Greenland; and now to be told that it is not uncommon as a breeding species in the district of Christianshaab may well excite incredulity. Moreover it may be remarked that the species has never been recognized in Iceland, the Färoe Islands, or on the coast of East Greenland, and is recorded as scarcely more than a straggler along the Atlantic coast of the United States. The breeding-haunts of *Tringa subarquata* appear to be the tundras of North-western Europe and Northern Asia; and I should as soon expect to hear of the nesting of *Tringa temmincki* or *Tringa minuta* in Greenland as of the Curlew Sandpiper. In thus expressing myself, I do not wish to cast any reflection on Mr. Ludwig Kumlien, who may be a competent observer; for by

Dr. Brewer's account the eggs now in the Smithsonian Institution, and credited to the Curlew Sandpiper, were not found by Mr. Kumlien, but were procured through the assistance of my friend Mr. Fencker, one of the Danish officials at Godhavn, Island of Disco. I expect that, on inquiry, it will be found that these eggs were not collected by, nor under the personal supervision of, Mr. Fencker, but obtained by him from native Greenlanders during his official visits to the settlements on the mainland opposite Disco Island.

I regret that I am unable to give a precise account of the proceedings of the expedition to which Mr. Ludwig Kumlien was attached as naturalist; but the following brief sketch will, I think, be found substantially correct. On the return of the British Polar Expedition in 1876, it was urged by Captain Howgate, of the United-States Army, that an attempt to reach the North Pole should be inaugurated by planting small colonies along the shores of Smith Sound, which would form the basis for further operations. Some money was collected for this purpose, but on a scale quite inadequate for a scheme of such proportions; however, a small sailing-vessel was fitted out as a tentative measure, and despatched to Davis Strait in 1877, under the command of Captain G. E. Tyson. I do not suppose that a voyage to the Polar Regions was ever seriously entertained by this expedition, which was totally unfit for such an attempt; at any rate the vessel wintered no further north than Cumberland Sound, which is situated on the west side of Davis Strait, a little south of the Arctic circle, and where American vessels engaged in whaling not unfrequently winter. In the summer of 1878 Captain Tyson crossed Davis Strait in his vessel, called in at Godhavn, and afterwards returned to the United States. I think it highly probable that the supposed Curlew Sandpiper's eggs were obtained by Mr. Kumlien from Mr. Fencker during this visit to Godhavn, and that Mr. Kumlien did not personally find *Tringa subarquata* nesting in the district of Christianshaab, North Greenland.

H. W. Feilden.

Aldershot, July 10, 1879.

Rothney, Simla,
August 25, 1879.

Sirs,—With reference to Count Salvadori's paper which appeared in 'The Ibis' of July 1879, p. 300, may I request the favour of your inserting in your next issue the enclosed copy of a letter which I have had the honour to address to that distinguished ornithologist?

Yours &c.,
A. O. Hume.

"Rothney, Simla,
"August 25, 1879.

"My dear Count Salvadori,—I am grieved to find, from the number of 'The Ibis' that has just appeared, that you are annoyed by certain remarks made by me, in a joking manner, about a species described by you. In the first place let me explain that I have three times addressed you on this subject, once in a long letter referring to many other subjects as well, and twice in letters simply referring to this question. These letters were addressed 'Count Salvadori, Museo Civico di Storia Naturale, Genova,' and I am exceedingly surprised to gather from your remarks in 'The Ibis' that none of them have reached you.

"It was so exceedingly improbable that three successive letters should all have miscarried, that you will, I am sure, admit that I was justified in concluding that you did not choose to furnish the information asked for.

"Now it was absolutely essential in the interests of Indian ornithology to find out what this species was, and the only measure that remained to me was to insert such a paragraph in 'Stray Feathers' as should be pretty certain to elicit the required information. As a matter of fact, my little, very harmless, *ruse* has been entirely successful.

"Then I see that you object to the word 'wretched' as impolite; but any Englishman will tell you that the term, as used by me, involved no want of courtesy. When it rains perpetually we English habitually say 'What wretched weather!' Now here was a species announced a dozen years ago by Blyth as from the Himalayas. From that day to this this species has been a constant source of vexation and disquietude to every Indian ornithologist. None of us could make out what the species was; and under these circumstances there was no want of politeness, according to English idiom, involved in speaking of it as a 'wretched species.'

"I have on many occasions acknowledged in the most explicit terms the great obligation under which your valuable writings, especially your 'Uccelli di Borneo,' have laid me, and I have often expressed the high admiration which I felt for the admirable ornithological work which you have done, and I should be much grieved should you retain any feelings of displeasure in regard to the little joking paragraph to which you seem to have taken such serious objection.

"In order to prevent the possibility of the miscarriage of this fourth letter, I take the precaution of registering it.

"I remain,
"Dear Count Salvadori,
"Yours most sincerely,
"(*Signed*) A. O. HUME."

A copy of the original Russian edition of Prjevalsky's work on Mongolia and the Tangut country* (of which we spoke above, p. 387) is now in the library of the Zoological Society. The zoological portion is in vol. ii., published at St. Petersburg in 1876. The species of birds figured are as follows:—

Tab. ix. fig. 1. *Calliope tschebaiewi.*
2. *Ruticilla alaschanica.*
x. *Merula kessleri.*
xi. fig. 1. *Onychospiza taczanowskii.*
2. *Montifringilla (Pyrgilauda) ruficollis.*
xii. *Carpodacus rubicilloides.*
xiii. *Carpodacus dubius.*
xiv. *Pyrrhospiza longirostris.*

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* The Russian title is 'Mongolia i Strana Tangutov Trekhyetnee Puteshestvil v Vostochnoi Nagornoi Azii,' *i. e.* Mongolia and the country of the Tanguti—a three years' journey in the mountains of Eastern Asia.

Tab. xv.	*Urocynchramus pylzowi.*
xvi.	*Phasianus vlangalii.*
xvii.	*Phasianus strauchi.*
xix.	*Tetrastes severzowi.*
xx.	*Grus nigricollis.*

Salvadori's Papuan Ornithology.—Prof. T. Salvadori's great work on Papuan ornithology, 'Ornitologia della Papuasia e delle Molucche,' is now in a forward state, and it is hoped that the first part, containing the Accipitres, Psittaci and Picariæ, will be ready about the end of the year. The second part will be devoted to the Passeres, and the third will treat of the remaining orders. The total number of species contained in the work will be about 900, the area embraced being the whole of the Austro-Malayan subregion, with the exception of Celebes and the Timor group of islands.

We are much pleased to see the announcement of the appointment of Major O. B. C. St. John, C.S.I. (the able fellow worker of Mr. W. T. Blanford on the fauna of Persia), to the new Consulate of Astrabad, in Northern Persia, near the south-east corner of the Caspian. We trust that Major St. John will have leisure to make ornithological collections in this district, which is an almost unworked locality, and presents a field of great interest.

We have received an ornithological letter from Dr. Finsch on his proceedings in the Pacific, which will be published in our next Number. At the date of his last letter he was just leaving Honolulu to explore the islands of the Marshalls group. His address is still to the "care of the German Consul, Honolulu."

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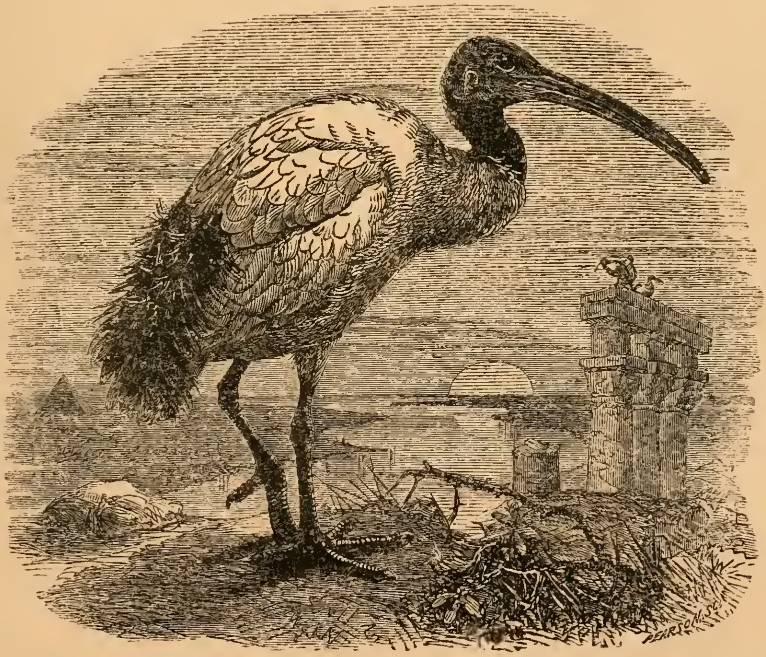

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1. J. C. Merrill. Notes on the Ornithology of Southern Texas. (Proc. U.S. Nat. Mus. 1878, pp. 118–173.)

2. Lettera del Prof. Odoardo Beccari a Giacomo Doria. (Ann. Mus. Genov. xiii. pp. 451–455.)

3. Lawrence. Catalogue of the Birds of St. Vincent. (Proc. U.S. Nat. Mus. 1878.)

4. Lawrence. Catalogue of the Birds of Dominica. (Proc. U.S. Nat. Mus. 1878.)

5. Ridgway. Review of the American Species of the Genus *Scops*. (Proc. U.S. Nat. Mus. 1878.)

6. Ridgway. On a New Humming-bird from Guatemala. (Proc. U.S. Nat. Mus. 1878.)

7. Barboza du Bocage. Aves das possessões portuguezas d'Africa occidental. Lista xiii. (Jorn. Sci. Lisboa, No. xxiii. 1878.)

8. Reichenow. Catalog zur vierten Ausstellung der "Aegintha" Verein der Vogelfreunde in Berlin.

9. Milne-Edwards. Remarques sur le genre *Mesites* et sur la place qu'il doit occuper dans la série Ornithologique. (Ann. d. Sc. Nat. 6^e sér. t. vii. art. no. 6.)

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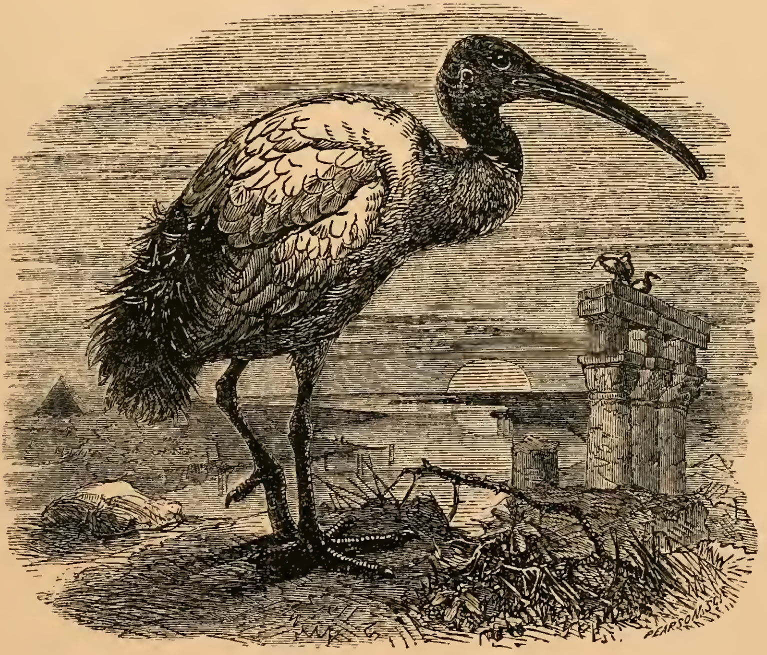

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1. Barboza du Bocage. Aves das possessões portuguezas d'Africa occidental. Listas xvi., xvii. (Jorn. Sci. Lisboa, Nos. xxiii., xxiv., 1878.)

2. Barboza du Bocage. Mélanges ornithologiques, iv., v. (Jorn. Sci. Lisboa, Nos. xxiii., xxiv., 1878.)

3. Reinhardt. En ny *Mitua* Art. (Vid. Medd. Nat. For. Kjöb. 1879–80.)

4. Coues. Birds of the Colorado Valley. Part i. 8vo. Washington, 1878.

5. Coues. Field-notes on Birds observed in Dakota and Montana. (Bull. Geol. and Geogr. Surv. iv. No. 3.)

6. Newton. Hawking in Norfolk.

7. Lawrence. Catalogue of the Birds of Grenada. (Proc. U.S. Nat. Mus.)

8. Müller. On certain Variations in the Vocal Organs of the Passeres. Translated by F. Jeffrey Bell and A. H. Garrod. 4to. 1878.

9. Sharpe. On the Collection of Birds made by Dr. Meyer during his expedition to New Guinea and some neighbouring Islands. (Mitth. d. kgl.-zool. Mus. Dresden, 1878, Heft iii.)

10. Pelzeln's Bericht über die Leistungen in der Naturgeschichte der Vögel während des Jahres 1877.

11. Oustalet. Note sur une nouvelle espèce de Merle bronzé. (Assoc. Scient. d. France, Bull. No. 580, 1878.)

12. Meyer. Noch einmal die Geschlechtsverschiedenheiten in der Papageiengattung *Eclectus* (Wagler). (Zool. Garten, Jahrg. xix.)

13. Ramsay. On new Species of *Ptilotis*. (Proc. Linn. Soc. N. S. W. vol. iii.)

14. Ramsay. Description of a *Myiolestes* from Fiji. (Proc. Linn. Soc. N. S. W. vol. iii.)

15. Ramsay. Five new Birds from Torres Straits and New Guinea. (Proc. Linn. Soc. N. S. W. vol. iii.)

16. Cabanis. Uebersicht der Vögel Ost-Afrika's. (J. f. O. 1878.)

17. Buller. Notes on the Ornithology of New Zealand. (Trans. New-Zealand Inst. x. p. 191.)

18. Buller. On the Disappearance of *Anthornis melanura* from the North Island. (Trans. New-Zealand Inst. x. p. 209.)

19. Buller. Further notes on *Heteralocha acutirostris*. (Trans. New-Zealand Inst. x. p. 211.)

20. Buller. On the Species forming the Genus *Ocydromus*. (Trans. New-Zealand Inst. x. p. 213.)

21. Buller. Notice of the Occurrence of *Diomedea cauta* in the North Island. (Trans. New-Zealand Inst. x. p. 217.)

22. Buller. On the Addition of *Phaeton rubricauda* to the Avifauna of New Zealand. (Trans. New-Zealand Inst. x. p. 219.)

23. Sharpe. Catalogue of Birds in the British Museum. Vol. iv. Campophagidæ and Muscicapidæ. 8vo, pp. 495, 14 Plates. London: 1879.

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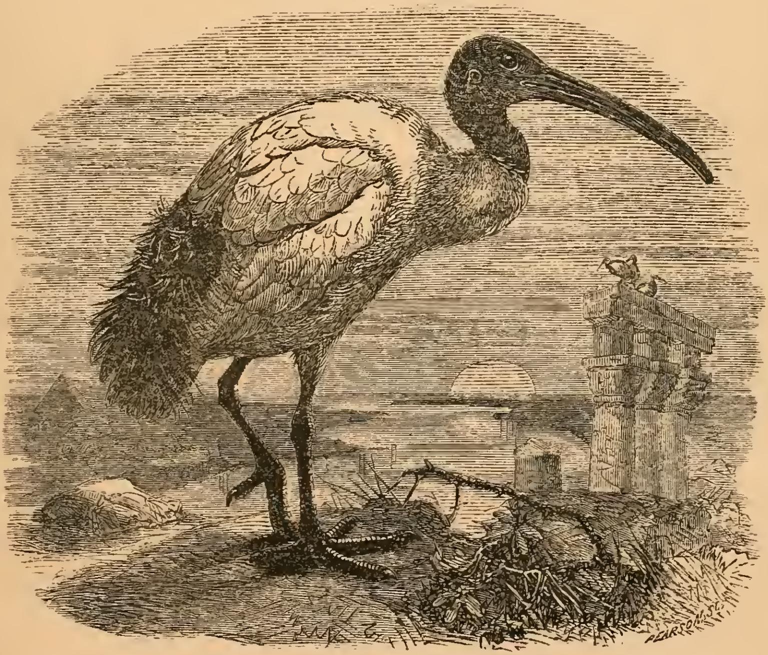

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F. DUCANE GODMAN,
Secretary.

6 Tenterden Street, Hanover Square, W.

The Editors of 'The Ibis' are glad to receive copies of Books and Papers of any sort relating to Ornithology, which will be duly noticed in this Journal.

LIST OF PUBLICATIONS RECEIVED SINCE THE ISSUE OF No. 10 AND NOT NOTICED IN THE PRESENT NUMBER.

1. Sharpe. Contributions to the Ornithology of New Guinea. Parts v. & vi. (Trans. Linn. Sc. [Zool.] xiv.)
2. De Heldreich. La Fauna de Grèce. 8vo. Athènes, 1878.
3. Lawrence. A General Catalogue of the Birds noted from the Islands of the Lesser Antilles. (Proc. U. S. Nat. Mus.)
4. Ramsay. Contributions to the Zoology of New Guinea. (Proc. Linn. Soc. N. S. W. vol. iii.)
5. D'Albertis e Salvadori. Catalogo degli Uccelli raccolti da L. M. D'Albertis durante la seconda e terza esplorazione del Fiume Fly. (Ann. Mus. Civ. Genova, xiv.)
6. Hartlaub. Ueber einige seltene Vögel der Bremer Sammlung. (Cab. J. f. O. 1879.)
7. Théel. Några bidrag till Novaja Semljas Fogelfauna. (Œfver. Kong. Veten.-Akad. Förh. 1876, No. 5.)
8. Théel. Beskrifning öfver hufvudets-ben hos *Anas boschas*. 8vo: Stockholm, 1872.
9. Bulletin of the Nuttall Ornithological Club. Vol. iv. No. 2.
10. Everard. Second Journey to the Kaieteur.
11. Rohweder. Beobachtungen über den Einfluss der Witterung auf den Vogelzug. (Ornith. Centr. 1879.)
12. Lawrence. Catalogue of a Collection of Birds obtained in Guadeloupe. (Proc. U.S. Nat. Mus., April 1879.)
13. Collett. Om et Par for Norges Fauna nye Fuglearter. (Chr. Vid.-Selsk. Förh. 1877.)
14. Collett. Norvège, Carte zoo-géographique, contenant une liste complète de tous les Animaux Vertébrés de Norvège. 4 sheets. Christiania, 1875.
15. Collett. Mindre Meddelelser vedrörende Norges Fuglefauna i Aarene 1873–76. 8vo: Kristiania, 1877.
16. Reichenow und Schalow. Biographischen Notizen über Ornithologen der Gegenwart.
17. Théel. Ornitologiska iakttagelser under en resa i Norge sommaren 1870. (Sv. Jägareford. Tidskrift, 1871.)
18. Hans Graf v. Berlepsch. Eine neue Gattung und neue Arten aus Südamerika. (Ornith. Centralb. 1879.)

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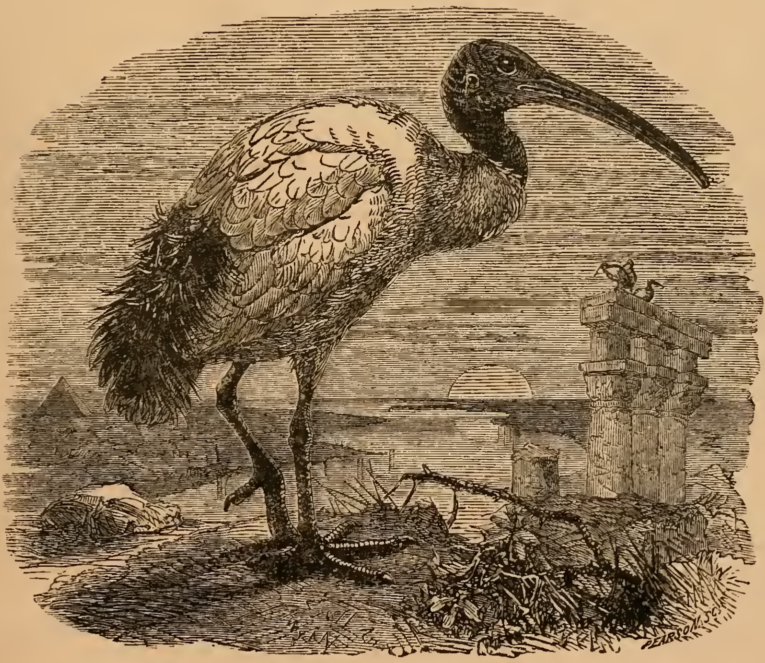

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List of Publications received since the issue of No. 11 and not noticed in the present Number.

1. Taczanowski. Quelques Mots sur les Pie-grièches à queue rousse de l'Asie Centrale. (Bull. Soc. Zool. France, 1877.)

2. Salvadori. Catalogo degli Uccelli delle Isole Kei. (Ann. Mus. Civ. Genova, xiv.)

3. Brewer. Notes on the Nests and Eggs of eight North-American Species of *Empidoraces*. (Proc. U. S. Nat. Mus. 1879.)

4. Dubois. Descriptions d'Oiseaux Nouveaux. (Bull. Ac. Roy. Belg. xlvii. June 1879.)

5. Dubois. Remarques sur la Faune de Belgique. (Bull. Acad. Roy. Belg. xlvii. June 1879.)

6. Lawrence. A General Catalogue of the Birds noted from the Islands of the Lesser Antilles visited by Mr. Fred. A. Ober; with a Table showing their Distribution and those found in the United States. (Proc. U.S. Nat. Mus. i. pp. 486–488.)

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